OREGON PORT DEVELOPMENT

HEARINGS

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

NINETY-SEVENTH CONGRESS

FIRST SESSION

ON

COASTAL PORT DEVELOPMENT

AND

LOWER COLUMBIA RIVER COAL AND GRAIN EXPORT

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OREGON PORT DEVELOPMENT

WEDNESDAY, AUGUST 26, 1981

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Astoria, Oreg.

The committee met at the port director's conference room, foot of Portway, Astoria, Oreg., at 9 a.m., Hon. Bob Packwood (chairman of the committee) presiding.

OPENING STATEMENT BY THE CHAIRMAN

The CHAIRMAN. Let me say at the outset of these hearings just what I have in mind for these hearings. Although it's not going to be true in every case and every place, but as a rule of thumb, there is going to be less Federal money available generally than there has been in the past; that is, at least for the foreseeable future. The Reagan budget is going to be tight and limited, and funds that may have been available at some prior time will not be as easy to get as before. So in planning future port development, the ace in the hole of a hoped-for Federal grant will be less likely than it might have been.

You know that the administration is trying to impose waterway user fees, Coast Guard user fees, and a variety of other user fees. Those I oppose. I think they will do nothing to further Oregon's ports, but it's one example of the Federal Government's efforts to cut its budget, to shed its costs, to move the costs out to the users, the ports, and the barge operators if they can. So in these hearings I am going to try, if I can, to find out exactly what potential each of your ports has, what you think are your priorities.

Every port cannot be a San Francisco. Every port on the Oregon coast has some unique potential for development, and I think those that do best to decide what that potential is and limit themselves to it, can do very well.

I have read all of the statements of all of the witnesses that I had as of about 7 o'clock last night. There are a few that are not in, and obviously I haven't read these. All of your statements will be in the record in total. You do not need to simply read the statement. Take my word for it, I have read it, and it will be in the record and fully read by others who will be interested in this record.

I will keep the record open for 3 weeks after the hearings have closed for other information that you may want to insert in it. I will encourage you when you testify, therefore, rather than just reading your statement, to abbreviate it and emphasize the highlights of it and then let me ask some extended questions. I think in that way you will get into the record what needs to be gotten into

the record, and I will have time to ask enough questions to flush out some other relevant information.

With that, let's start with our first witness today, Mr. J. W. Forrester, the publisher of the Daily Astorian. Bud?

STATEMENT OF J. W. FORRESTER, EDITOR, THE DAILY ASTORIAN, CHAIRMAN OF THE CLATSOP COUNTY ECONOMIC DEVELOPMENT COMMITTEE, AND MEMBER OF THE GOVERNOR'S TASK FORCE ON LOWER COLUMBIA RIVER ECONOMIC DEVELOPMENT

Mr. FORRESTER. Good morning. I was told to bring numerous copies of this. I don't know what for, but——

The CHAIRMAN. Because it's always been done.

Mr. FORRESTER. I had come prepared to read this. Thank goodness I don't have to.

It seems to me that the role of the Port of Astoria in the movement of coal from the Rocky Mountains to the Pacific rim countries is becoming more and more obvious. I say this because I think that the suppliers of coal, the people who are going to transport the coal and the buyers of coal have more clearly identified the role of each of them and what they must do to bring this altogether from the mine head over the railroad and out to the port, and to the Pacific rim countries.

The role of the Port of Astoria, I say is going to become clear. It seems to me it is becoming obvious now that it must serve as a key deep water port to accommodate ships of 100,000 deadweight tons and more.

The CHAIRMAN. Let me interrupt you, Bud, if I might. When you are talking about the Port of Astoria, could you indicate which of the sites you are talking about?

Mr. FORRESTER. Well I think there are three potential sites, Senator; Tongue Point, the port docks out here and the Skipanon River, all these are suitable for the movement of coal.

I say that the role of the Port of Astoria is becoming clearer and clearer. Since writing this, I note the press report in recent days quoted Senator Slade Gorton of the State of Washington saying that he thought all of the movement of coal that needed by moved on deep water, deep draft vessels, should be done through the Port of Seattle. This seems to me increasingly strange, as I ponder the ramifications of it.

Now I can't avoid making this comment, and it needs to be emphasized and I hope that it will be by others. One of the key components of all this is the Burlington Northern Railroad. The Burlington Northern Railroad in going to move most of the coal out of the Rocky Mountains and specifically the Powder River Basin to the Northwest and for movement to the Pacific rim countries. The Burlington Northern is going to determine probably more than anyone else where this coal is going to arrive on the Pacific coast.

Burlington Northern is going to determine probably to a greater extent than anyone else whether the Port of Astoria will become a major deep water port. Without the rebuilding of BN tracks between Astoria and Portland, that becomes impossible.

The CHAIRMAN. And what have you found the attitude of the Burlington Northern to be to date?

Mr. FORRESTER. I am not privy to all the things that are going on in the background. I see the evidence, the encouraging evidence of a consortium involving the owners of coal, the railroad people are interested in providing coal facilities, coal movement facilities in the ports, and the buyers of coal. I have no evidence that Burlington Northern is not going to be a part of that consortium, but let me emphasize that it is, of all of the parts, its role is probably most important, so I would hope that whenever there is an opportunity, Senator, today and tomorrow, in view of what Senator Gorton has said, that you try to determine as best you can what Burlington Northern is thinking about. If he has been talking to them and has drawn the conclusion that the Port of Seattle can handle all the deep water port requirements for the Northwest, then the role that many of us are trying to develop for the Port of Astoria takes on quite a different color and quite a different situation.

The CHAIRMAN. What would be the Port of Astoria's potential if we were to use a coal slurry pipeline instead of the Burlington Northern Railroad, and have it terminate here?

Mr. FORRESTER. Well, I wish I could answer that, but I can't answer it knowledgeably. I know the economics of movement by slurry, but I understand that it was abandoned in the case of the coal tar plant at Boardman, and for what reasons I don't know. I was told that it was for economic reasons. On the other hand, that site is well served by a railroad, and that undoubtedly had something to do with; however, this site is not.

The CHAIRMAN. The fact that Boardman could have been well served by a coal slurry pipeline may be the reason they are well served by rail.

Mr. FORRESTER. It may be.

Another possibility is movement of coal by barge to the Port of Astoria, however, I am told that the economics of that is very "iffy". The best shot, I think, is from mine to ship, and enough to have the handling of coal at some intermediate point you have to take it off of barges and take it down and put on the ship.

The CHAIRMAN. You have one bottleneck at the lock at Bonneville Dam. If you are talking about big barges, you are stuck.

Mr. FORRESTER. Yes, unless Union Pacific was considering the possibility of putting in a trunk below the dam and moving it off rail cars onto barges and bringing it down here.

The CHAIRMAN. But what are the alternatives for Astoria economically until a deep water port can be developed, assuming it is going to take 4, 5, 6, or 7 years, including putting in all the facilities and upgrading the railroad?

Mr. FORRESTER. Well, it seems to me that one of the keys to this is an amendment by Congress that the bar will be deepened to accommodate ships of 100,000 tons and more, and that a channel will be deepened to some point. If that commitment is made, then customers very readily identify what's going to occur here, and planning can go forward and I would expect that that would begin to bring everything together. I think that it would begin to—certainly it would encourage, to use a polite word, Burlington Northern to get going on a rail line between Portland and Astoria.

The CHAIRMAN. Do you think as far as the various potential port sites in this area are concerned there is a particular advantage of Tongue Point over Skipanon over the Port of Astoria Docks?

Mr. FORRESTER. I think there is one advantage to the Port of Astoria Docks at this time; fewer permits from the regulatory agencies would be necessary to get into business at the Port of Astoria Docks than either Tongue Point or Skipanon.

Now you'll recall that Brown and Root was very close to putting in an offshore oil assembly yard on the Skipanon and it acquired almost all the permits necessary to go in there, but by a process which is beyond my comprehension, somebody would have to start all over again and do everything that Brown and Root had done if and when there were a coal facility. However, some ground has been broken there and none at Tongue Point; we start from scratch at Tongue Point, so the Port Docks, something could be done there more readily than here.

It seems to me if I read this correctly, the reliance of the Pacific rim countries on coal is going to become such that we are going to need all of the capacities of the ports of the Northwest to move coal to Japan, Korea and Taiwan and China. It seems to me we are going to need all of them, but above all we are going to need deep water, because the economics of the situation dictate that a great amount of this coal be move in vessels that presently can get in the Columbia River, and will never--well, I don't foresee them going to Kalama or to the Port of Portland.

The CHAIRMAN. One of the points you make is related to Senator Gorton's reference to Seattle. The limitation on that is the railroad north from Portland; it is a busy, busy line. You made the statement that we are going to need as many ports as we can find, and I think you're right. However that rail line is so busy now that the idea of moving several unit trains additionally a day up that line would be likely to cause significant delays of existing rail traffic.

Mr. FORRESTER. Because the emphasis of these hearings is primarily on transportaiton, there is one other aspect of this that you may or may not be aware of. Governor Atiyeh's representative for Economic Development's Task Force and some people in the State government and the State land board have talked together on more than one occasion about the possibility of the ports or the State acquiring the rail line from Portland to Astoria. Assuming that the revenues would be there to move the coal and—certainly coal and grain to amortize the purchase and the rebuilding of the line, what we have had in mind in these discussions is joint use. The Union Pacific very much needs a deep water port in the Northwest, and most of Union Pacific's coal is going out to Long Beach, Calif.

I don't rule this out, but I think you should know that that has been talked about.

The CHAIRMAN. Last question, Bud. What happens to downtown Astoria if the site used is Skipanon, or even the Port Docks. Those will be long trains, going through town several times daily?

Mr. FORRESTER. Well, the community woulld have to accommodate to this. I am sure they could. Prior to coming to Astoria I lived in Pendeleton for 25 years. The main line of the Union Pacific, with very long freight trains moving day and night from the Willamette runs through Pendleton. This movement of long

freight trains occurs in Salem and Eugene and communities much larger than Astoria around the clock. I think it's possible to accommodate this. I think we need to make a study as to what the impact would be on those waterfront businesses. Possibly, I think it would be too costly to develop anything to move automobile traffic either over or under the tracks, and that's not been found necessary in Salem, Eugene or Pendleton, The Dalles, or any place on the main line of the Union Pacific or Southern Pacific. Perhaps some way to accommodate a better movement of pedestrians would be necessary maybe something over or under the tracks, but this is not an impossible situation; communities live with this and we have to move commerce. That's why the railroad is there.

If things had been done that should have been done a long time ago, this would be a very busy railroad now, and I think it's a great misfortune of this community that it's not.

The CHAIRMAN. That's all the questions I have.

Thank you very much, Bud.

[The statement follows:]

STATEMENT OF J. W. FORRESTER, EDITOR, THE DAILY ASTORIAN

My name is J. W. Forrester. I am editor of The Daily Astorian; chairman of the Clatsop County Economic Development Committee, and member of the Governor's Task Force on Lower Columbia River Economic Development.

The role of the Port of Astoria in the movement of commerce from the Columbia River to Pacific Rim countries is becoming increasingly clear.

The commitment of the government of the United States to make Pacific Rim countries less reliant on OPEC oil has brought the Port of Astoria up front.

Movement of coal from the Rocky Mountain states to the Pacific Coast and thence to Japan, Korea and Taiwan will require deep-water ports on the Pacific Coast that can accommodate ships carrying 100,000 tones and more. The Port of Astoria has become a prime candidate for that designation.

As all of the many parts of this arrangement are examined it becomes increasingly apparent that the shortest route from the Rocky Mountain states to the Pacific Coast is down the Columbia River and the shortest distance for ships traveling between the United States and Pacific Rim countries is into and out of the Port of Astoria.

Owners of coal, railroads, prospective purchasers of coal and builders and operators of ships that will transport the coal are focusing on the Port of Astoria.

I think it accurate to conclude that what occurs here will be determined by forces outside the area, and not by persons residing here.

It seems to me probable that a consortium of representatives of coal suppliers, rail and ship transportation, builders and operators of coal handling facilities and purchasers of coal will decide how the Port of Astoria will fit into the big scheme of moving millions of tons of coal out of the United States to Pacific Rim countries.

I do not want to leave you with the impression that movement of coal from the Pacific Coast will be solely through the Port of Astoria. The projected demand for coal in Japan, Korea and Taiwan will be of such magnitude that all ports through which it can be moved will be able to get a piece of the action.

The Port of Astoria will have a special role because those places where deep water exists or can be provided are relatively few. They will be essential, for the economics of the situation requires that as much coal as possible be moved in deep-draft vessels.

What must be done to make the Port of Astoria a major deep-water port?

An essential beginning was made in recent weeks through the offices of The Institute for Environmental Mediation. That agency brought together representatives of the Port of Astoria, the cities of Astoria and Warrenton, Clatsop County, the state Land Board and state and federal government regulatory agencies to discuss all aspects of achieving the full potential of the Port of Astoria.

The principals had seven, two-day sessions during which they examined what could be done in respect to development at 10 locations within the Lower Columbia River Estuary.

Some preliminary and essential agreements were arrived at. All concerned now know the capacity of the estuary to accommodate cargo movement and how it can be realized.

Conclusions were developed on the assumption that deepening of the Columbia River Bar and the channel to Tongue Point will be done to accommodate deep-draft vessels.

For that to be accomplished, the Congress must authorize the Corps of Army Engineers to extend a study being made of deepening the bar. That study, now in its third year, envisions depth of 55 feet. Pilots who move ships over the bar and into and out of the river have testified that bar depth of 65 feet is necessary to accommodate ships of the design contemplated for carrying large tonnages of coal, plus a channel of 55 feet from the bar to Tongue Point.

I do not know the estimated cost of extending the scope of the Corps of Army Engineers' study from 55 feet to 65 feet and deepening the channel to Tongue Point to 55 feet but it seems to me obvious that it must be done.

All that must fall into place to make possible movement of coal out of the Port of Astoria need not be held in abeyance until the bar and ships' channel are deepened. But it is essential that all involved, and principally the potential buyers of coal, know that the necessary dredging at the bar and in the channel for movement of deep-draft vessels is contemplated.

I see convincing evidence that all who are concerned with the movement of coal from the Rocky Mountain states to Pacific Rim countries are going to do what it is necessary for them to do. I am not so sure that the potential buyers of coal share my optimism. But I am sure that a signal from your committee that the dredging necessary here to accommodate deep-draft coal carriers will be done would be convincing.

I thank you, Mr. Chairman and members of the committee, for permitting me to express these thoughts. I speak the gratitude of all who envision the development of a major deep-water port at the entrance of this great river.

The CHAIRMAN. Next can we have Fred Shaylor, Bill Herder, Steve Felkins, Tom Murray and Duncan Law take the table together. I think you can get one more chair up there. We will take their testimony together. I will have a variety of questions, although I may be interrupting as we go.

STATEMENT OF FRED SHAYLOR, COMMISSION PRESIDENT, PORT OF ASTORIA

Mr. SHAYLOR. Thank you, Senator, and Staff, for this opportunity to discuss with you some of the economic developments the Port of Astoria is looking forward to.

We have often talked about the development of a coal facility in Astoria, as well as various other things. The problems that the port faces are very frustrating in the fact that in going through the various permit applications and processes, we find ourselves stymied many times in trying to obtain permits; for instance, one thing that we are working on right now is the Energy Impact Grant Applications. We made application for that the first part of the year, and it has gone through and we were assured that the funds would be made available sometime during the first of August. It has cleared the A-95 review process, and the Department of Energy notified us then that the funds would be coming. On August 5, for instance, they notified us that these funds would not be made available until possibly the first of October, the reason given that the Washington, D.C., review process was taking longer these days. We've made numerous calls to NOAA, and have not been given any great reason by them for delays. We discussed the process with your staff and have been given assistance in that way.

The Department of Energy representatives feel that it is reasonable to assume that funding may not occur before the end of 1981. Our main concern is the fact that funds may not be made available

to us for these studies, had they not been granted prior to the end of September 1981.

We also feel that the Port of Astoria needs and will play a vital role in U.S. commerce as a deepwater port.

We feel that it is necessary then for Congress to take action to develop a fast track method so that the Columbia Bar, for instance, or other areas can be deepened and so that commerce can come through. It is imperative, not only for the State of Oregon, but for the United States and the world commerce that the Port of Astoria be developed as a deepwater port.

Another vital link in this is the inland transportation link, and the development of rail systems to service not only the Port of Astoria, but for any deep water port, or for any port in the Nation.

These are some of the things that we have been struggling with and looking forward to at this time: The need to have some action taken in trying to perhaps give incentives to inland transportation to develop their routes and to upgrade their facilities, perhaps with some financial assistance of Congress. We feel that there is—there has to be a balance between development and environmental issues, and the Port of Astoria, being a good corporate citizen, is trying its best to work out and to develop the estuarine areas in compatibility with the estuarine use as well as development. There has to be a balance between the two.

The CHAIRMAN. Assuming you had everything you need today for development of coal and perhaps grain export also, how quickly could you begin operation? In your estimation how long would you be delayed by a variety of permit applications?

Mr. SHAYLOR. Well, that's a good question, Senator. It could take up to 3 years. That's why we are talking about a fast-track, one-stop method whereby we could be assured that we would know all of the requirements necessary for a permit application. As it is now, we go to various agencies and we get various answers and delay is inevitable.

The CHAIRMAN. Let me ask you this: Given the number of unit trains that are likely to go through town, have you done studies to determine to what extent the noise, traffic and the other problems would severely disrupt Astoria?

Mr. SHAYLOR. We are now engaging, Senator, in a study of a unit train corridor to determine the actual impact, not only the physical, but visible and noise level impact, and we hope to have that study completed shortly.

The CHAIRMAN. Who is doing the study?

Mr. SHAYLOR. The Port of Astoria.

The CHAIRMAN. Internally?

Mr. SHAYLOR. Yes, sir.

The CHAIRMAN. I would like to see that. I know Pendleton, Portland and Salem, but I think the trains going right through this town are going to be big, heavy trains consistently, and it's going to be a shock to the citizens if they are not fully prepared for it. The results of the study may be a shock to the port. I don't know what physical damage might occur. I don't know what problem the weight of those trains going through town might cause, but I think you are better to be prepared for it than to suddenly be blindsided

and perhaps stuck with an extraordinary cost that you didn't foresee, simply because you didn't have a study.

Mr. SHAYLOR. That's very true. There has been talk over the years in the city of Astoria, of realining Highway 30 and bringing it from John Day along the southern side of Astoria, and it's a very good possibility that the rail line could be relocated along those lines too. It has been discussed, but nothing serious has been done.

The CHAIRMAN. What has been your experience in dealing with the Burlington Northern?

Mr. SHAYLOR. For many years it has been very frustrating. The Burlington Northern being a single carrier into this area has had a strangle hold on the growth and economy of Astoria. Lately we have begun to see a change in the attitude of Burlington Northern; they are becoming more responsive to our requests, and working very diligently with us. It yet remains to be seen as to what the final outcome will be.

The CHAIRMAN. Do you think the change has come since Mr. Bressler took control?

Mr. SHAYLOR. Yes, sir, I do.

[The prepared statement of Fred Shaylor follows:]

STATEMENT OF FRED SHAYLOR

Chairman Packwood, members of the Committee, my name is Fred Shaylor and I am pleased to have this opportujity to comment of development opportunities at the Port of Astoria.

The Port of Astoria has established as one of its major objectives the development of coastal areas which will enable it to function as a viable, productive and forward-moving economic entity in the coastal region.

Ports must be able to position themselves to take advantage of world market conditions. We must have flexibility in order to respond to demands for development of port facilities which are capable of handling and delivering goods and services. We must have financial resources made available which make new development projects possible. Also, and of utmost importance, we must be able to bring on line those coastal areas which allow us the opportunity to diversify port economic activities with a certain degree of predictability.

The Port recognizes that proper conservation and protection of shoreland and estuarine resources must be considered in the overall development scenario. We are concerned, however, that over zealous federal regulatory agencies can and do inhibit the ability of ports to achieve new developments. Often, the uncertainty of being able to obtain appropriate permits of being bogged down in the endless review processes results in the development system ceasing to function.

A major point to remember is that most port activities are water-dependent; in other words, they too must be located near or adjacent to water areas just as environmental uses are. Ports, therefore, have a legitimate claim and position in the coastal region.

It cannot be questioned that regulation of our natural resources was a paramount need in our not too distant past. Many of these regulatory agencies were structured to provide a checks and balances system to achieve a proper mix between the environmental uses and port development uses. However, it is clear today that the system is not functioning along these lines. It has developed some serious shortcomings. Specifically, each regulatory agency handles an over-riding veto power over any waterway development project. There is no single agency with the power to adjudicate in a timely manner and set the final decision for permit review. It is a cumbersome, frustrating, lengthy process which greatly inhibits a port's ability to respond with assurance to local, regional, national, and international demands for port development.

The Port of Astoria is currently experiencing frustrating situations on a Coastal Energy Impact Program grant application and a Pier Construction Permit request that are perfect examples of the difficulty in obtaining governmental approvals.

In each case the review process has been on-going for months. The involved state and federal agencies are inconsistent in their responses concerning project status or when project approval may be forthcoming. Additionally, requirements respecting uses of the facility (which cannot possibly be determined at this time) are being

demanded prior to project approval. Constant inquiries as to the exact causes of delays have gone unanswered, or the answers at best are less than candid.

For ports to be more responsive and able to quickly deliver and position themselves for whatever comparative advantage they may have, the centralized federal clearinghouse mechanism should be refined to the extent that all regulatory issues to be resolved should be quantitatively set forth by the clearinghouse agency and the final decision making process stop there. Under such a mechanism, conflicts in local scheduling would be minimized, local planning and development "front-end" costs reduced, misinterpretation of guildelines, rules and regulations reduced, and, we suspect, time frames for reviews and approvals greately reduced.

It must be stressed that while it may be desirable for ports to be required to function in an atmosphere of acute environmental awareness, they can only do so within certain financial parameters. The financial capability of ports is not limitless. Bringing a development site on line is costly and difficult under any circumstances. One of the major impediments to growth and development are environmental issues which override sound planning and economic considerations for site development and result in higher development costs. In most cases, ports are unable to immediately generate the dollars necessary to develop alternative sites, should they in fact have such sites under ownership.

Another identifiable impediment to development of major port sites that I would like to briefly address is the inadequateness of inland transportation systems (or lack of them) which are vitally necessary to serve these potential sites. Of utmost concern to the Port of Astoria is the responsiveness of the transportation system provider for assuming the responsibility and cost of necessary upgrading. Quite possibly incentives may need to be provided to accomplish the upgrading of inland transportation to capacities necessary to serve the commerce demands of today's world. It is certain that the ports do not have the financial resources to carry out this undertaking. Yet, if it is not done, port facilities will most assuredly not be brought on line to respond to the demands of interstate and international commerce.

The CHAIRMAN. Mr. Felkins?

STATEMENT OF STEVE FELKINS, DIRECTOR, PORT OF COOS BAY

Mr. FELKINS. I apologize a little for our delegation being late, but we ran into a fog problem.

The CHAIRMAN. Did you drive up this morning?

Mr. FELKINS. No, we flew in.

We flew out and around a little bit, so I haven't had the benefit of knowing what else has been said.

Coos Bay is somewhat different than most other west coast ports in that it was not developed as a public terminal port operation. It's one of the very few private ports left in the United States; it has both its good and its bad points. The large corporations found that Coos Bay was advantageous to build terminals and they had enough of their own in-house product that they could afford to run their own docks and do their own thing. They have preempted most of the favorable spots.

Our concern is that with the few available terminal sites left, not only in Coos Bay but in all of Oregon, places like Coos Bay, Astoria, and possibly Newport, with the population and the local resources being so low that the money simply isn't available, will never be available to build multipurpose facilities.

The land that's suitable for marine development and still available is kind of a precious thing. There probably aren't 10 terminal sites left in Oregon that haven't been started in on, and if the money can't be raised to put these into multiple-use facilities, then by default, they will be picked up by large corporations who will use them, but will use them in a very limited sense. I think this would be a loss for the State, certainly to our community and to

the Nation, and I don't know the answer to that. Coos Bay is the fifth or sixth largest port on the west coast in terms of tonnages, but there are only 41,000 people in the port district, and no matter how willing the local people would be to build a $10 to $15 million facility and run it for the maximum amount of cargo to be put over it, the resources simply don't exist in the area and never will, not public resources.

The CHAIRMAN. Give me your estimation of what should be the premier use of the Port of Coos Bay; I have asked this question of the other ports, because, as I have indicated in my opening statement, everyone cannot be a San Francisco. There are some ports better suited for some types of activities. What is Coos Bay's role?

Mr. FELKINS. Coos Bay is now in the center of the largest timber resource left in the United States, and I don't see that as changing, as inland transportation costs go up faster than water costs, and Coos Bay, I think, will remain a prime export center for forest products. The land that is in the bay probably should be put into facilities that convert that product into something where there is more money left behind. Our major export out of Coos Bay is wood chips, 4 million tons a year.

The CHAIRMAN. Translate that. Do you mean cutting the logs up into timber? What do you mean by more money left behind?

Mr. FELKINS. Well, I am going to use wood chips as a prime example; 80 percent of the 5½ million tons of cargo that left Coos Bay last year was wood chips. Wood chips is a manufactured product in a very limited sense. This all went to foreign papermills. This particular commodity should be manufactured into either pulp or paper, or even into a further refined product locally and then shipped. I don't think that we want to get out of the export market; we would just like to manufacture more there.

In order to be competitive in the forest products of the world you need to have production facilities right at tidewater. It just won't stand a lot of inland transportation costs for the remaining sites in Coos Bay, I think their best use is for docks that support pulpmill facilities or processing facilities, and for the facilities themselves.

The CHAIRMAN. You seem conviced that there is an overseas market for these finished wood products if Coos Bay were to develop itself in that direction. If the market weren't there, wouldn't you run into resistance from foreign countries wanting to buy just barely finished products or raw products?

Mr. FELKINS. We haven't seen that, and I think it's a little bit in the end like OPEC, they are going to take what's available and we are going to dictate the use of it. The fastest growing commodity in export to China is liner board, which is a finished paper product, in which Coos Bay and other west coast ports are very well situated to supply.

The CHAIRMAN. Now other than answering what we need is more Federal money, what does Coos Bay need? What do you need in the way of transportation, what do you need in the way of anything for the Port of Coos Bay to develop its highest and best potential as you have described it?

Mr. FELKINS. Well, you said other than money.

The CHAIRMAN. Other than Federal money.

Mr. FELKINS. Other than Federal money.

The CHAIRMAN. I don't want to mislead anybody by promising things that neither Senator Hatfield, nor I, nor Congress, nor the President is likely to deliver. There is going to be less money in the future than there has been in the past.

Mr. FELKINS. OK. I have the dilemma of saying we are going to develop these public facilities, because the money is not going to be able to be raised locally. As far as transportation facilities, as they relate to docks and channels, the very large corporations can take care of their own financing. You can't start a papermill for less than a half billion dollars today.

The other transportation, the inland transportation, is what concerns us; I have lived on the west coast, and I have seen the Interstate Highway System really change the geography of the West. People are moving in to areas serviced by the highway system and those cities that are off of it are deteriorating.

The CHAIRMAN. You cannot ship chips from Eugene; you have got to get them to the coast somehow.

Mr. FELKINS. Right.

The CHAIRMAN. You have this premier position in the geographic advantage of the harbor, and there is nothing that can be done to take that away from you by someone in Washington, D.C.

Mr. FELKINS. That is a geographic fact. Somebody could improve the highways.

Astoria is not on the Interstate System, Coos Bay is not on the Interstate System, neither is Grays Harbor, but we are, I think, the only major ports on the west coast not on the Interstate System.

Now at one time several years ago, somebody proposed that the interstate could be changed to allow spurs to go to major export ports, and while it sounds like a very good idea, we haven't heard anything for a couple of years.

The Interstate Highway System is pretty well finished in the West. The money seems to keep coming in to build more overpasses and more restrooms and widen it out. It would be nice if we could get these so-called spurs down to Astoria and Coos Bay. I certainly think that would help us.

But there again that's a Federal money situation.

Mr. CHAIRMAN. How is your rail service?

Mr. FELKINS. We are on Southern Pacific. Southern Pacific is actually a branch line, but we are the best branch line that they have. They have put $8 million in the last few years into the roadbed. The amount of tonnage going over the track has remained static for about 10 years, and it is very encouraging that they will negotiate with any port user, but on their own they do not seem to be soliciting industries to locate on that line.

Mr. CHAIRMAN. Are you convinced because of the position that you are in, that companies will develop their own sites and their own exports without much help from the port?

Mr. FELKINS. That's right.

Mr. CHAIRMAN. Well, doesn't that in essence solve much of the port's problem in that case?

Mr. FELKINS. They will develop—I think the point I am trying to make is that there may be four or five terminal sites left, and when I say terminals, I mean a place to tie up a ship and transfer goods. Let's say a large corporation; let's take Crown-Zellerbach,

which doesn't do dusiness in Coos Bay: if they were to attain one of these terminal sites, then they would use it exclusively for their own product; they may use it only 20 or 30 percent of capacity, which fulfills a purpose, a private purpose, and if there were innumerable terminal sites, I think that is beautiful, just let them all have one. When there is only four or five left, I think it's in the community's interests, and I think in the State's interests, that the actual dock interface be used to the maximum and not be controlled by somebody who just happens to want to put the bill on the dock too. Yet without the public funds to control this, I think this is what is going to happen.

Mr. CHAIRMAN. All right. You have reasonably adequate rail transportation and inadequate highway transportation because of a bad link to the interstate, but a natural harbor that cannot be taken away from you. You do not have a big enough tax base to offer industrial revenue bonds yourself, because the likelihood of selling them or because the likelihood of the bonds being marketable with so small a base is pretty nil.

Mr. FELKINS. That's right.

Mr. CHAIRMAN. So unless you can either get outside money from the Government or enough outside money from private industry, you are in a bind. The kind of money that you are likely to get from private enterprise is going to be a single-use facility rather than a multipurpose facility.

Mr. FELKINS. That's correct, and I cannot fault private industry for wanting to take that approach. I am pointing out a dilemma that we have, when we know that to develop the port we should do certain things, and through its facilities it would have a great intensity of use, but the funds do not seem to be available, I don't know where we are heading.

Mr. CHAIRMAN. What is your coal export potential?

Mr. FELKINS. We are approaching coal completely different than the other ports. The other ports in the Columbia River seem to be building or designing coal facilities in order to attract the user. We have been approached by a coal company, and asked to design a facility for their specific use, and I think that puts us in a little different light. This coal company is, by its own admission, promotional; they are studying the feasibility of reopening the Coos Bay coal fields and to upgrade the local product which is low-grade coal by blending in Utah coal, by being able to use that mix and cutting down the amount that they would have to pay the higher freight rate, they hope to be competitive in the west coast market, and maybe the overseas market, and we have encouraged them in every way we can, but they are dictating the facility to us, not the other way around, they are telling us how much land they need, and so far they are still in feasibility studies. The media sometimes acts like the first coal ship is on its way, but they have told us it will be 18 months before they know if they have a go project or not.

We would certainly not be averse to tying up that much of our remaining waterfront land for a facility that would reopen the local body; there would be a tremendous amount of truck driving and truck maintenance into it. If we had to turn virtually all of our publicly owned waterfront land over to a facility that was just

going to run unit trains in from another State, I think there would be some serious local objections.

Mr. CHAIRMAN. What is the status of your compliance with the LCDC in the port plans?

Mr. FELKINS. The port plans have been done for years. It's the county plan that has gone on and on. It was scheduled like all other county plans to be done 1 year ago last July. It is now targeted to be in a draft state 1 year from now, and I would say we are at least 2 years before being in compliance. It has become very complicated.

Mr. CHAIRMAN. This is the county, not the port?

Mr. FELKINS. Well the port does not have a zoning function. We are merely advisory and contribute to the process as to how we feel our properties should be designated, and we try to assess private industry as to how their property should be done.

Essentially the port administers public lands, and all the planning on that is done. It's the whole package and they can't seem to get underway.

[The statement follows:]

STATEMENT OF STEVE FELKINS, DIRECTOR, PORT OF COOS BAY

Mr. Chairman, the Port of Coos Bay wishes to thank the Chairman and the Committee for the opportunity to present current problems impeding orderly and expeditious development of Oregon's second largest port, Coos Bay.

As with the operation of any large corporation, public as well as private, problems from critical to trivial beset day to day operations and influence short-term planning and designs. These problems we can handle. Our Commissioners and port staff in cooperation with the Maritime Industry, regulatory agencies, Congressional offices, etc., maintain and operate Oregon ports in an efficient and responsible manner. It is the long-term effort, the planning and construction of major terminals and navigation improvement facilities for the future needs of Oregon and the nation that the Port of Coos Bay, and I'm sure other Oregon coastal ports, see major, perhaps insurmountable difficulties in port development. To illustrate these problems we would like to briefly summarize three areas which seem to us, both now and in the future, as major stumbling blocks to further port development. These are: (1) finances, (2) environmental programs and (3) inland transportation.

FINANCIAL

The Port of Coos Bay is the 5th largest export port on the west coast; in 1980 shipping some 5½ million tons of Oregon forest products to overseas and domestic markets. This tonnage moved almost exclusively through private terminal facilities. The terminals are owned and operated by companies who are large enough and move enough of their own products to economically justify owning a marine terminal, even though through-put may be far below the capacity of the facility. Several corporately-owned, undeveloped terminal sites remain in the Coos Bay harbor and it is anticipated that these will also be brought on line as single-use, often underutilized dock operations.

The balance of marine terminal sites in the harbor are publicly owned through the Port Authority. It would be highly desirable if the Port, using public funds, developed these sites as multi-purpose terminals, striving to attain a diversity of cargoes and a maximum utilization of the dock frontage. This is not only good port planning, but meets the goals of all environmental groups that state correctly that estuarine waterfront is a precious commodity and all waterfront land planned for commercial use be developed for intensive and diversified activities. As public planners we concur with this position. Unfortunately in reality, outside of the Portland area, the local public funds to implement this type of development simply do not exist. There are only 41,000 people in the Port of Coos Bay Port District; this compared to 1½ million within the Port of Portland. No matter how desirous Port of Coos Bay constituents may be of development of modern, diversified ship terminal facilities, the tax dollars to do this simply do not exist within the Port District. This is extremely unfortunate for both the Port, the State and the nation. There are few marine terminal sites left on the west coast. They will all ultimately be

developed, but in the non-metropolitan areas lack of public funding will cause them to go to large corporations by default, who will use them exclusively for their own limited needs.

ENVIRONMENTAL ISSUES

Six or seven years ago when the federal Coastal Zone Mangement Act was being passed, many ports and port authorities were enthusiastic about a program that purported to take the uncertainties out of the coastal permit process. This was a program that said in simple language, that each state would develop a plan that would preserve, protect and enhance those coastal lands suitable for scenic and habitat resource. Those lands suitable for development would be set aside for that purpose, and development could and would take place as needed.

Unfortunately like most programs that are put together in a reasonable and responsible political process, the implementation was left to federal and state agencies; completely dominated by preservationist, no-growth, wildlife oriented administrators. The State of Oregon has so perverted the intent of the Coastal Zone Management Act, that no development can occur in much of the coastal zone. Harbor development in coastal ports comes only after prolonged and costly permit wrangling, and is usually accomplished only after personal intervention by the Governor and Congressional representatives. Ports simply cannot continue to serve the commerce and navigational needs of the state and nation when each harbor modification, each facility modernization, is harassed by federal and state resource agencies using existing permit procedures to delay and deny projects they see as detrimental to their particular wildlife interests. It is impossible to negotiate with private industries for port terminal facilities when the port can offer no assurance that (1) the project can ever be built and (2) how many months or years it may take to get through the regulatory mess.

Of late, an especially onerous aspect of port development is the implementation of the 404 Clean Water Act by federal agencies. Having forced a halt to most in-water port development, these same preservationist oriented agencies have discovered a new, stop the world tool in declaring large areas adjoining terminal sites habitats as inviolate wetlands. There is even lack of agreement among federal agencies as to what criteria constitutes a wetland, leaving port developers the impossible task of trying to satisfy a variety of interpretations, all with veto powers. Without adjacent back-up areas, building docks is an academic exercise.

As all ports are by nature competitive and the consumer in the end pays all port costs, it would seem that standard dock designs would be beneficial and acceptable to all. Unfortunately this is not the case. Within this state, designs permitted in the Port of Portland or Coos Bay may be vetoed for Astoria and vice versa. For a dock planned for the same shipping function, a design using standard bulkhead and fill, engineering such as is now under construction at the Port of Portland's Rivergate Terminal, costs approximately ½oth of an all piling structure, the type demanded by the regulator for a dock in Coos Bay to do the same thing. It is impossible to build a competitive port when the permitting agencies apply a dozen different rules costing as many different prices, for a permit to do the same thing in various places.

In summary, until the regulators depart from a program of harassment, no-growth and wildlife before all else, port development on the coast of Oregon is going to proceed at a very slow bell.

INLAND TRANSPORTATION

For some years it has been the stated policy of the federal government to diversify the nation's economy and decentralize the population. If there is one federal program that can be pointed to as a powerful counter effort to decentralization, it is the federal interstate highway system. The interstate system is literally changing the economic and social geography of the west. Industry and population are gravitating to the interstate highways with all the resulting side effects; preferable freight rates, better air service, liberal financial attitudes, etc. In Oregon the coast and much of the eastern state is relatively stagnate while development in the I-5 Corridor (Portland, Salem, Eugene, Medford) moves Oregon into 11th place on the list of fastest growing states in the U.S.

Of all the major ports on the west coast of the nation, only three are located off the interstate system; two of these are in Oregon, Coos Bay and Astoria, the third, Grays Harbor, in the State of Washington. These three ports were founded and developed to their present state in one commerce; the export of forest products. While the tributary area to these ports has been somewhat expanded, the level of forest products moving through these ports has largely stabilized. In order to remain a viable part of the nation's port industry, these coastal ports need to

diversify into other cargoes; cargos that could find these coastal ports with their immediate access to the eastern pacific steamship route; a desirable place to await trans-shipment. Coos Bay, like Astoria, is served by a branch rail line. While service is available, the roadbeds are sub-standard when compared to rail service to other ports. The same is true with the highways leading to and from these ports; two lane, serviceable, but far below interstate standards. Land transportation costs have historically been, and will continue to be, higher than water transport. It is important to Coos Bay's future that in-land transportation costs, rail, highway and air be equal to other west coast ports. Second class service or high freight rates resulting from higher operating costs can be the death knell to any American port.

Congress has in the past considered legislation that would extend interstate spurs to ports with significant export tonnages. We ask that your committee continue to explore this possibility.

One suggestion proposed locally in Coos Bay is to attempt to connect up with the interstate highway running through Honolulu. This segment of the U.S. interstate system runs from the suburbs south of Honolulu into the cane fields north of town. Perhaps this should be continued on to Interstate 5 through the Port of Coos Bay; a port that has a considerable monthly commerce to Hawaii.

This concludes our comments. We again wish to thank the Senator and the Committee for the opportunity to present them.

The CHAIRMAN. Mr. Herder, I wonder if I could ask you to come and join us, and I'd like to take your testimony next.

STATEMENT OF BILL HERDER, SECRETARY, PORT OF NEWPORT

Mr. HERDER. I apologize for being late, but I thought it would take 2 hours and 15 minutes, but it was 2 hours and 45 minutes and fog.

The CHAIRMAN. Go right ahead.

Mr. HERDER. Senator Packwood and members of the committee. I am pleased to have an opportunity to comment on the committee's concern with the status of the Port of Newport, and potential impediments to port development and commerce growth.

The Port of Newport, in cooperation with Lincoln County and the city of Newport Planning Commission developed the first estuary plan on the coast of the United States. The plan entitled "The Yaquina Bay Plan" was completed in 1969. The plan addressed orderly development for the estuary as well as its environmental concerns.

The CHAIRMAN. Let me say this. You weren't here when we started. I have read the statements.

Mr. HERDER. Have you?

The CHAIRMAN. Completely, yes.

Mr. HERDER. All right.

The CHAIRMAN. So you don't need to read it. It will go into the record, but I would rather have you summarize it and give me the strongest points you need to make.

Mr. HERDER. Well, the strongest point that I could make is that the Federal Government has invested $50 million in the development of the Yaquina Bay Harbor, and we don't have a commodity to ship out. We have had countless problems with environmental agencies and bureaucracies that have delayed the development, the further development of that estuary.

Now we are attempting to develop the railhead into Newport.

The CHAIRMAN. This is the one from Toledo?

Mr. HERDER. That is correct, that is approximately 10 miles, but what we are concerned with is that it will take 10 years perhaps to get it through the agencies and through impact statements and

financial feasibility reports and time dealing with all of the environmental agencies. Somehow the process of development has to be speeded up. It's very difficult to contend with. In my testimony I have outlined several situations that were absolutely ridiculous in the development of our South Beach Marina project, our recreational facility.

I would just like to mention the fact that the project was held up because an archeologist thought maybe a midden site was there, which in fact was several thousand feet away on private property, but the port had to hire——

The CHAIRMAN [interrupting]. I read that in your statement. What is a midden site?

Mr. HERDER. It is where the Indians shucked clams and oysters and they find beads and arrowheads occasionally in that type of site, so that was the delay in that process. Well, there were several delays caused by the same kind of concern. We overcame them eventually, and the project was developed, but it cost the taxpayers a great deal more money and the port a great deal more time.

If the process for licensing or permitting development can be speeded up through the Federal agencies, that would be a step in the right direction.

The CHAIRMAN. Let's say that you are moving in the direction you want to go and you are able to expedite the process. What is the highest and best use of the Port of Newport? Mr. Felkins states that as far as Coos Bay is concerned, it is the center of the timber industry, and it is going to continue to be the center of the timber industry, and he would like to see finished pulp and paper products shipped out rather than raw products. Astoria is convinced that it can be a major coal and grain exporting port for deep draft ships because of its location. What is the strong point for the Port of Newport?

Mr. HERDER. Well, I think the location of the Port of Newport and the proximity to the shipping lanes would be a definite advantage.

The CHAIRMAN. What do you ship out?

Mr. HERDER. Well, right at present we haven't a commodity to ship.

The CHAIRMAN. No; I don't mean at present. Can you become a deep water coal exporting port, or is getting it there by rail too great a problem; is the rain there too great a problem; what is going to be the best use of that harbor? There is no point in pretending you are going to have deep draft vessels if nothing is coming to be shipped on them.

Mr. HERDER. We have an existing 30-foot channel and a 40-foot bar. Coos Bay, I think is 35 and 45, 5 feet further, so neither of us are equipped for deep draft, when you are talking of deep draft coal ships, but we can accommodate the regular ship and the regular freighter very nicely. If we only had coal or grain or timber or plywood or paper products. Georgia Pacific is located in Toledo, and they are a major shipper from Oregon, so it is a matter of bringing their product to Newport. Right now we can bring it in by rail 10 miles away, and we have been barging timber and lumber down the Yaquina River, which isn't too practical, and shipping from there. They haven't shipped anything in a year.

The port is in the process of acquiring, or at least negotiating to acquire, the terminal docks that are in private ownership at present. We hope to take that function over and enhance that area, but without a product, we really can't do much with shipping.

The CHAIRMAN. Well, then, are you saying, as Coos Bay is saying, that you think your paramount use as far as major commerce is concerned is in the forest products industry?

Mr. HERDER. Well, I would have to say that agricultural products could be a major factor, too. I don't know; Coos Bay doesn't ship grain, do they Steve? No; Astoria has some grain shipment, but I think the alternative area then would be Newport, since it wouldn't cost any more to bring grain into that harbor than it would into Portland by rail. We have area for a backup facility that would provide elevators.

It has been mentioned that it wasn't any more expensive to ship grain from Montana to Seattle or Tacoma as it would be to Portland, so that the difference was so very little that it was of no consequence, so I think that the potential for the Newport area would be, then, that we can enhance our shipments of various commodities. If for any reason such as this St. Helen's disaster in Portland which plugged the Portland Harbor, of if something happened at Coos Bay, we would have an alternative site that's already there and existing; all we need is 10 miles of railroad. That would be our biggest potential.

The CHAIRMAN. Which railroad serves you?

Mr. HERDER. Southern Pacific.

So I think they would be able to move grain, at least they have expressed an interest, and they have several alternative methods of providing that railroad service to Newport, but again, we are going to have to go through the permit process and feasibility studies.

The CHAIRMAN. What further potential do you see for the Port of Newport for commercial and recreational fishing?

Mr. HERDER. Well, of course, it is a very safe bar and harbor, so we have that advantage for recreational fishing. The deep water shipping, of course, being the closest to the shipping lane, saves the carrier a great deal of cost in bringing a freighter into the harbor and turning it around and bringing it back out. I just read this morning surprisingly what a bar pilot was paid on the Columbia River, and they are going on strike. They want $95,000 a year net, and that they get 5.5 cents a net ton on a ship. Well adding that up into the mileage that goes into a harbor, the further inland that it is, the more costly it is for the product to be shipped, therefore I think that Yaquina Bay would have a definite advantage competitively, anyway.

The CHAIRMAN. Well, let me come back again to your fishing potential, and tell me what you think it is.

Mr. HERDER. Most of the fishermen have enjoyed the ports on location. When the salmon are biting on the southern coast, they can leave Newport and go down there and fish easily and troll the fish all the way up and go north until they are into the Washington area. The same with draggers and shrimpers: They work the entire coast and quite easily from the central location.

The potential for fishing is tremendous out of that area; most all of them are doing pretty well.

The CHAIRMAN. I am not sure all of them would say that.

Mr. HERDER. Well, that is, you know other than the salmon fishermen; the troller isn't doing too well.

The CHAIRMAN. I never heard very many fishermen say they are doing well—even when they are doing well.

[The statement follows:]

STATEMENT OF BILL HERDER, PRESIDENT, OREGON PUBLIC PORTS ASSOCIATION

Mr. Chairman, members of the committee, I am pleased to have the opportunity to comment on the committee's concern with the status of the Port of Newport's development, potential impediments to port development and commerce growth.

The Port of Newport, in cooperation with the Lincoln County and city of Newport Planning Commissions, developed the first estuary plan on the coast of the United States. The plan entitled "The Yaquina Bay Plan" was completed in 1969. The plan addressed orderly development for the estuary, as well as environmental concerns, and provided an outline for implementation of the plan.

In 1970, the Yaquina Bay project was completed by the U.S. Army Corps of Engineers. The harbor entrance was deepened to 40 feet, the channel deepened to 30 feet and a turning basin, at the terminal docks, provided a 30-foot depth. The north and south jetties were extended, providing a moderate and safe bar crossing for 500-foot to 600-foot vessels. Logs, paper, pulp, and dimensioned lumber were regular cargoes shipping out of the Port of Newport. The $17 million investment by the U.S. Army Corps of Engineers was a good investment; Newport's economy prospered.

At that time, plans were started to develop the South Beach Marina. The plan would separate the recreational boaters from the commercial fishing fleet which would eliminate the traffic congestion and parking problems experienced along the Newport waterfront.

At that point in time, the Land Conservation and Development Commission was establishing environmental guidelines which would prove to be major obstacles in the development of the remaining projects within the port plan. The South Beach Marina project experienced several environmental agency delays. The west breakwater was determined to be partially over the top of a submersed clam bed. The plan was altered to avoid the clam bed, but only after numerous public hearings. Shortly after construction of the breakwater, the concerned agency authorized a commercial underwater clam digger to remove all clams from the subject area. The result was a total waste of taxpayers' time and tax money. The city of Newport Planning Commission stopped the project after they determined a zone change was required for a marina use. The cost to the Port of Newport was $21,000 in legal fees. The project was again held up by an environmental agency's concern that the breakwater was being built over an Indian midden site. The midden site was located 1,000 yards south of the project on private property. The Port of Newport paid hundreds of dollars to refute the claim. Two man-made log ponds are within the boundaries of the South Beach project; the plan called for filling one with the spoils from the boat basin. Environmental agencies would not permit the fill, and required the port to remove sunken logs from the ponds and breach a berm allowing a greater tidal flow into the man-made ponds. This was called "mitigation" and added to the hearing process and the costs of the project. The cost to the port was $15,000.

As you can readily see, the environmental agencies have cost the Port of Newport thousands of dollars and created a major impediment to the orderly development and growth of commerce within the port district.

The Port of Newport is in the planning stage to renovate the commercial boat basin, which will provide bigger berths for the expanding fishing fleet. The project entitled "Project Beaver" was started in 1978 and it has encountered one obstacle after another in the development process. The major problem is environmental agencies. The Port of Newport has hired consultants to attempt to work out a workable plan for mitigation with the environmental agencies. To date, a workable plan has not been acceptable. The cost to the port was $10,000.

The fact that there is no railroad from Newport to the valley, at this time, is a major problem associated with the port's development. Southern Pacific Railroad terminated at Toledo, approximately 10 miles from Newport. The railroad terminal in Newport would allow the port to ship other commerce from its docks via deepwater shipping. My concern, and that of the Port of Newport Commission, is that the Federal Government has invested approximately $50 million to develop a deepwater port to serve the waterborne commodities of our Nation but the economic potential cannot be utilized without 10 miles of railroad. Our concerns are that environmental agencies could conceivably delay or prohibit that economic potential.

In conclusion, Mr. Chairman, I hope I have given you some insight concerning the impediments relating to the sound utilization of the Port of Newport's economic potential.

The CHAIRMAN. Mr. Murray?

STATEMENT OF THOMAS J. MURRAY, PORTLAND, OREG.

Mr. MURRAY. Mr. Chairman, I wonder if you would indulge me the privilege of reading a very short summary, since the panel that follows this one is represented by Federal and State agencies, and the attack that I am taking is not on coal or specific commodities; it is perhaps on those agencies themselves.

The CHAIRMAN. Go right ahead.

Mr. MURRAY. My name is Thomas Murray. I have been associated with the administration, research and development of navigation facilities for the past 34 years in Oregon, on the Pacific coast, in the Middle East, Southeast Asia, and other places.

I have worked directly or indirectly for every Oregon coastal port in my time, and I am still engaged by some Oregon coastal port authorities.

In your letter, Mr. Chairman, you stated the committee is primarily concerned with the current status of the port transportation systems and the potential, and I quote "Real impediments to port development and growth in commerce."

Well the real impediment to port development existing now are many of the unnecessary overlapping and duplicated regulations by both Federal and State Governments which cause delays and excessive costs beyond reason.

Another and equally important "real" impediment is that some Oregon coastal port entrances and navigation facilities are deficient in design and operation and require remedial action and soon.

The Oregon coastal economy has been economically distressed since that phrase was coined when the Economic Development Administration was established.

Oregon's coastwide lumber business is down some 60 percent this year. The distress of the commercial fishing industry which you yourself referred to, needs no further elaboration here. It is in a serious state of distress.

What is needed by all agencies of the Federal and State Governments are streamlined, commonsense, unbiased, intelligent, reasonable, and expedited approvals of needed river and harbor improvement projects which permit private and public development to proceed without unnecessary delays and skyrocketing costs.

The National Environment Policy Act, the Coastal Zone Management Act, the State of Oregon's Land Conservation and Development Commission and the so-called environmental groups, combined caused delays through studies and shuffling of paperwork that has hamstrung orderly development and contributed to stoppages and exhorbitant additions of public funds for development purposes.

The CHAIRMAN. Let me stop you there for a minute.

Mr. MURRAY. Surely.

The CHAIRMAN. Do you think that the State land conservation and development commission has been an impediment rather than a help to rational development?

Mr. MURRAY. I don't think so. I know so.

The CHAIRMAN. Why is it then, with the exception of Coos, Curry, and Douglas, that the Oregon coastal counties voted to keep it in 1978?

Mr. MURRAY. Well, Senator Packwood, if you read the last ballot issue which was in 1978, you as a very competent attorney, I think yourself would pause in the interpretation of the issue.

As I have and many others have

The CHAIRMAN. Well, Tom, you might, but I don't. The argument is often used, and I use it frequently myself whenever one of my ballot issues that I want to pass fails, or vice versa, that the public didn't understand what they were doing. By and large they know whether they are voting for or against the LCDC, and often the argument is made, "Well, we are overwhelmed by Portland and Eugene, and they vote overwhelming for it and our people don't want it." As I say, with the exception of Coos, Douglas, and Curry, even the coastal counties voted to keep it.

Mr. MURRAY. Mr. Chairman, I don't really believe that the people of Oregon or the coastal counties that you speak of really understood the impact of the land conservation and development commission's authorities and actions until the last few years. I really do not. I think that impact is just now coming in the fore.

The CHAIRMAN. You think if placed on the ballot again the public might severely limit it or abandon it?

Mr. MURRAY. I would have to reserve judgment on that statement at this moment. I believe there would be a considerably larger negative vote than there has been in the past without question.

The CHAIRMAN. Go ahead.

Mr. MURRAY. The unreasonable delaying tactics under the guise of environmental protection is one of the real impediments to port development and economic growth. There is no question about that, and this can be documented in the number of years it has taken for the deepening of the Coos Bay Channel as one example, the improvement of the Umpqua River training jetty as another example; the recent delay, again as the result of the land conservation and development commission's activities on Nehalem's activities. The potential imposition of the Federal Government's proposed user charges is a subject that I wanted to bring up, even though you indicated this was not a subject of the hearing.

The CHAIRMAN. I don't mind you bringing it up, but I do want the audience to understand that this committee doesn't have jurisdiction over the waterway user fees. We do have jurisdiction over the Coast Guard fees. As far as either the user fees on ports or the user fees on inland navigation, I am opposed to them, and I will do what I can to defeat them, but I don't have jurisdiction over them in this committee.

Mr. MURRAY. The only point I wanted to make to those sitting at this table, there is not a single port authority, port district on the Oregon coast that has the financial capacity to comply with the proposed Federal regulations for user fees.

I think the real impediments to port development and growth can be resolved by the appropriate legislators enacting the laws necessary to resolve those impediments.

The CHAIRMAN. Assume we can speed up the process, and get rid of the entanglements. Still, every port is not going to be a major coal exporter and a major grain exporter. Different ports have different advantages, and you more than anybody else in this room know, that, because you have been in Washington all the time I have been there, coming back and representing different ports. Starting with Astoria and moving down to Brookings, what do you see as the best potential of each of the ports?

Mr. MURRAY. Well, let me go back first to coal. I went through the coal business. You see, the Port of Portland was a coal-exporting port in the late 1940's, to Japan and a few other countries. We conducted a study for the Port of Astoria some years ago as to what we thought its potential was, and what its financial condition was and would be, and we did not foresee coal exports at all, and the reason for that is the cost of deepening the Columbia River entrance runs into the multimillions of dollars. The cost of maintaining it runs beyond that, and the cost of holding that channel is substantial, and I don't know what it could be, frankly, to be honest with you, and I'd have to defer to the Port of Astoria and I would be remiss in criticizing what I think should and should not be its potential. Going further down the coast to the next port entrance, Nehalem, I think it's simply commercial fishing and recreational boating.

Going further south to the Port of Tillamook Bay, it's again lumber barging, commercial fishing and sports fishing. The gentleman who just spoke for Newport, which know it very well, he explained the problem and potential at Newport, I think very well.

The CHAIRMAN. And yet 20 years ago, 30 years ago as you have gone up and down the coast, Brookings, Bandon, Siuslaw, and Newport would not have stood out head and shoulders above some of the other ports, and yet for some reason they have developed better. Now why is that?

Mr. MURRAY. Yes, they did stand out, and the reason for it is simple. It's basically this, we have timber operators today on this coast sitting on stumpage, trees on the stump, at an average of over $400 a thousand board feet. We have Canadian neighbors to the north with stumpages of less than $100 a thousand board feet, and their transportation costs to the east coast is considerably less than the American-flag cost of vessels to the east coast. The Port of Newport was developed primarily for two basic reasons; one, it was a substantial intercoastal lumber shipping port, and two, it was to be a pulp importing port of noodle pulp from Alaska to the Georgia-Pacific plant at Toledo. That was the basis for the justification of the development of navigation facilities at Newport. Now, with the international situation as it is, and with the skyrocketing costs of stumpage as a result of the theoretically depressed amount of volume of stumpage in this State, we cannot compete in the east coast market, we are out of the east coast market. The east coast lumber market is taken by the Canadians. That's Newport only.

The CHAIRMAN. You are saying that basically the purpose for which it was developed has not come true, and yet the port still has flourished rather well.

Mr. MURRAY. It has flourished in the sense—not a deep water traffic.

The CHAIRMAN. No, I understand that, but what went wrong with Garibaldi or Bandon, whey didn't they flourish, why did Newport flourish? What did it do, what did it plan that was different, that made it work?

Mr. MURRAY. One word. The bar. You can cross it with more safety and less fear of accidents, perhaps than many other bars. That's the gut issue.

The CHAIRMAN. Well then going on down the coast, what is the future of many of our smaller ports like Bandon and the Siuslaw?

Mr. MURRAY. Well, let's go down to the next one which is the Siuslaw. It is lumber shipping, commercial fishing and sports fishing and again it's the bar. The uneven jetty system, the fact that we have perhaps the heaviest influx or infill of sand from the North Pacific—or wave action in the wintertime, makes it one of the most hazardous bars and a bar that's impossible almost to dredge to its project dimensions, but its lumber, commercial fishing, sports fishing.

Umpqua is the same, and of course Umpqua includes the inbound barging of oil products to the pulp plants. Steve Felkins explained that very well.

So Coquille is basically again lumber, barge lumber, commercial fishing and sports fishing, but in each case they need improvement of—in design and operation of those facilities that will allow them easier and safer access.

The CHAIRMAN. With a few exceptions, Tom, you were mentioning commercial and sports fishing, including tourism.

Mr. MURRAY. That's correct.

The CHAIRMAN. Is there enough of that business for all of these small ports to flourish?

Mr. MURRAY. Yes. I made a statement to one of the directors of civil works some years ago, that what the Corps of Engineers should have done at that time was build every single port to its optimum capacity because the costs were so low at that time, because at one time we would be overrun by this type of traffic and I don't know whether these gentlemen here or not will bear me out, but in 1975 we did a study of every Oregon coastal port, a coastal port development plan, and at every single coast port we visited, its desires were indicated to us, as were those at the Port of Astoria in this room, and evey single one of those ports wants, desired and had waiting lists for more recreational boating facilities. Of course with the depression and recession continuing as it is, I don't know how many more boats are going to continue to be built and purchased, yet the potential is there; that is one of the very few potentials left as far as recreation and——

Mr. CHAIRMAN. Well, I realize the potential is there, but are you saying that fully developed, their ultimate and best use would be commercial and sports fisheries, that indeed they could flourish and profit, every one of them, from here to Brookings on that basis? I don't mean that that is all that Astoria would do or all that Coos Bay is going to do, because they are larger harbors and in a different situation. Are you saying that all of them could flourish, that there is enough of that kind of business, given a normal economy, for all the ports to benefit?

Mr. MURRAY. Given a normal economy, Brookings is perhaps the best example of all; 15 years ago it was considered a dog hole, they had to go in with kicker boats and use the propeller wash to dig out enough sand so that the salmon could come up river and spawn. Today with jetty improvements, and there are still jetty improvements needed, with two basins constructed, it is perhaps the most viable economic facility in that area today. The South Coast Lumber Co. is down, that's the communities principal employer. My guess is it will be down the rest of the year, as will be many of the lumber mills in the State of Oregon be down the rest of the year. The port is the activity, especially so when the fish are running, and as you know, and in a few cases here this year, the fish have been running and that people flock there by the thousands.

There is no question in my mind that if the ports were developed to the optimum, I don't say the maximum; the optimum capacities, that they should be developed without the impediments and without the costs, that there would be a healthy segment of the economy that would exist along the Oregon coast which does not now exist except through the summer period. This is a cyclical, seasonal business.

Mr. CHAIRMAN. As I indicated at the start, there is going to be less Federal money rather than more under this administration, and perhaps under any other at least for the foreseeable future.

Mr. MURRAY. Right.

The CHAIRMAN. If all of these are viable developments, why can't they be developed locally?

Mr. MURRAY. Well, as I said a minute ago, I know; I don't think, I know there isn't a port district on the Oregon coast that doesn't have financial problems right now. I can cite you chapter and verse, and we are talking by comparison peanuts; just let's look at the Port of Coos Bay; its dredging costs last year were $2,900,000. The dredging costs out here average $3 to $5 million at the mouth of this Columbia River. The Umpqua is looking for $1 million this year and asking for more. Siuslaw's dredging costs, the appropriation this year as proposed to the Congress was $900,000. That's the problem. In other words we can't control nature, and that's what brings the problem.

The CHAIRMAN. What I am saying Tom is this, the administration wants all these ports to pay all their own costs, this is their port user fee concept. You are saying that on the one hand these ports can flourish, but they will never flourish well enough to be able to pay their own costs, that they will have to have a perpetual Federal subsidy to flourish, that they are not economically viable in and of themselves without Federal support?

Mr. MURRAY. This is correct, and I believe this is what the United States is all about; is it not?

The CHAIRMAN. Well, I agree with your conclusion, but when you say economically viable, you have to add then, a perpetual Federal help.

Mr. MURRAY. That's right. They can't do it for themselves, it's just that simple.

The CHAIRMAN. I have no more questions. Are you finished with your statement?

Mr. MURRAY. Yes, sir. Thank you very much, Senator Packwood. [The statement follows:]

STATEMENT OF THOMAS J. MURRAY, CONSULTANT PORTLAND, OREG.

Mr. Chairman, my name is Thomas Murray. I have been associated with the administration, research and development of port and navigation facilities for the past thirty-four years, most of them in Oregon and on the Pacific Coast. I have worked directly or indirectly for every Oregon coastal port district during that period, and I am still engaged by some Oregon coastal port authorities.

In 1975 we completed the Oregon Coastal Port Development Plan outlining the long range improvements desired by all ports on the Oregon coast.

Mr. Chairman, in your letter of invitation to this hearing, you stated the Committee is primarily concerned with the current status of the port and transportation system and the potential "real" impediments to port development and growth in commerce.

There are a number of potential impediments to port development and growth in commerce on the Oregon coast.

The "real" impediments to port development existing now are many of the unnecessary, overlapping and duplicated regulations by both Federal and State governments which cause delays and are causing excessive costs beyond reason.

Another, and equally important "real" impediment is that some Oregon coastal port entrances and navigation facilities are deficient in design and operation and require early remedial action.

The year-round economy of Oregon's coastal region has been "economically depressed" ever since that phrase was first used when the Economic Development Administration came into being some years ago.

Oregon's waterborne coastwise lumber movement is down some 60% this year. The distress of the commercial fishing industry on the Oregon coast needs no elaboration here, I'm sure. What is needed by all agencies of the Federal and State governments are streamlined, common sense, unbiased, intelligent, reasonable and expedited approvals of needed river and harbor improvement projects to permit public and private port developments to proceed without unnecessary delays and skyrocketing costs.

The National Environmental Policy Act, The Coastal Zone Management Act, the State of Oregon's Land Conservation and Development Commission, and the so-called "environmental groups" have, combined, caused delays through studies and the shuffling of paperwork that has hamstrung orderly development and contributed to stoppages or exhorbitant additions of public funds for developments.

Unreasonable delaying tactics under the guise of environmental protection is one of the "real" impediments to port development and economic growth. In some cases, it appears as though people seem to have become less important than non-human creatures.

With unemployment as high as it now is on the Oregon coast, and with the price of stumpage (trees on the stump), Oregon's coastal economy has no immediate potential for early growth in coastwise waterborne commerce. Some forest products operators are sitting on stumpage costs of over $400 per thousand board feet, while our Canadian counterparts to the north are working on stumpage prices under $100 per thousand board feet, and they also have significantly cheaper water carrier rates than American flag vessels.

The potential imposition of the Federal government's now proposed user charges, which would ultimately result in another tax, for cost recovery for operation, maintenance and new construction of river and harbor facilities, will close all Oregon coastal port entrances, for most vessel traffic, for all practical purposes, within a few years.

Without the Federal-financed annual maintenance dredging of Oregon coastal entrances, river channels and jetty repair work, there isn't an Oregon coastal port district that has the financial capacity to bear the cost of the annual maintenance dredging alone that is required as a result of an act of nature, and nature moves a sizable amount of materials downstream and from the ocean onto the entrance bars and into the river entrances every year.

The "real" impediments to port development and growth of commerce can be resolved by the appropriate legislators enacting the laws necessary to resolve such impediments.

The CHAIRMAN. Mr. Law?

STATEMENT OF DUNCAN K. LAW, CHAIRMAN, FISHERIES PROJECT, OSU SEAFOODS LABORATORY, ASTORIA

Mr. LAW. I am Duncan Law and I am professor of food science at Oregon State University.

I think that everybody is quite aware that the fishing industry is currently in a state of flux, and this is caused by a series of circumstances that include world oil prices, the 200-mile limit and all that sort of thing that everybody is quite familiar with.

Now this unstable situation has put the fishing industry in really a price squeeze. It really poses a serious threat to its economic health, and this is at a time when almost paradoxically the world demand for fish is increasing and public awareness of the nutritious qualities of fish is going up. Everybody seems to be aware that the consumption of fish is better for a person's health.

Despite this, we are kind of in what you might call the doldrums and we are trying to figure out some way of solving this sort of dilemma.

Now one of the things, one of the approaches that has been suggested is joint venture operations, and I think this offers some fine opportunities. We have joint venture operations in the hake with the Russian foreign processors.

We have a joint venture operation here in Astoria with the Mexicans trying to develop a fish protein concentrate which I hope I will be able to take you to later on today.

The CHAIRMAN. I think if we finish the hearings in time I may have the chance to go through that facility.

Mr. LAW. Now these joint venture programs aren't new, but they do embody the concept of further utilization, and this is part of the picture we are going to have to come to, we are going to have to utilize everything we have out here in the ocean, and especially since these joint venture operations don't deal with seafoods that are domestically used, they do offer this total utilization concept, but some concerns have been expressed that perhaps joint ventures might interfere with our own resource management and also our own domestic process development, so in this regard I think that this concern should be kept to a minimum in moderating programs such as we are attempting to do now, plus aid and assistance to domestic process development would advance, but I might say that I am biased in a certain respect because I am with a research group. I think the most promising avenue toward full utilization and a healthy, profitable fishing industry, I don't say this is the only one, but to enlarge the research and development aspect of the fishing industry. In this regard I think programs like Sea Grant should be followed and supported as best as possible because this is done where our research and development, a good share, will originate.

Now I say this because the promise that research and development will put forth is just unbounded and can be exemplified by a couple of projects that I am particularly familiar with, and one is the development of a salmon feed so that the salmon can be raised more economically in the hatcheries; it has brought tremendous returns back, and at this point in time, Coho salmon, for example, approximately 70 percent of them are hatchery fish now in the Northwest.

Then we have another project that has been Sea Grant supported, with regard to shrimp, and the increasing yield in certain methods of handling the shrimp. These two projects alone have brought untold millions back to the fishing industry, but to make this point short, these are just tips of the iceberg as to the things that can be done, and one of the things, one of the aspects that should be pointed out is that consumption of fish could be increased tremendously, because the average consumer eats most of his fish in a restaurant, and why? It's primarily because the consumer doesn't know how to handle fish very well, so with proper research on how to handle and how to have a high quality and stable and tasty fish product introduced into the American home, I think our consumption of fish would grow and all the industry would share with the increase in the economy.

The CHAIRMAN. Tell me about the fish meal plant and how soon you are going to be in full production?

Mr. LAW. I would like to correct that, it is not really fish meal. That has a connotation of just ordinary fish material being ground up and made into a dry product.

It is really what they call a fish protein concentrate. It had some unfortunate beginnings a few years back. I think that the material is different now and it has a prospect of possibly being onstream within a year.

The CHAIRMAN. Do you think there is a good market in the United States?

Mr. LAW. The market in the United States has not been thoroughly investigated at this point in time, but I was at a conference in Washington, D.C. last year. The Third World nations are desperately in need of protein. One of the people in one of the South American countries told me at least 70 percent of their people are protein short.

The CHAIRMAN. Now this particular plant is a joint venture with Mexico, isn't it?

Mr. LAW. Yes, it is.

The CHAIRMAN. And are they planning to take all of the production initially?

Mr. LAW. At this point in time, yes.

I might also point out that this is not just a local type of a program. We have had excellent support from Coos Bay, because they also see the potential of fisheries utilization from their point down there too.

The CHAIRMAN. What needs to be done to make this fish protein product marketable in the United States? What do you have to overcome?

Mr. LAW. There are some inherent problems in the product itself which we think we are working out. These include fishy flavor, fishy odor.

The CHAIRMAN. You mean you have to get rid of the fish flavor and the fish smell before they'll buy fish?

Mr. LAW. That seems to be true in some cases. The only reason for that is you don't expect fish taste to be in a cookie or in bread.

The CHAIRMAN. Can you get rid of the fish taste?

Mr. LAW. We think we can.

The CHAIRMAN. What will it taste like then?

Mr. LAW. It will be very bland, just like flour.

The CHAIRMAN. Is that right, and then you can use it for a great variety of purposes?

Mr. LAW. Yes.

The CHAIRMAN. You can make hot cereal out of it?

Mr. LAW. We would like to be able to supplement foods like that, increase the protein intake, perhaps within our own area maybe snack foods, so many people are talking about empty calories, and perhaps this protein would make for healthier reproduction.

The CHAIRMAN. Well, it seems like almost a magic product, you take the fish smell and the fish taste out of it and you grind it up into some kind of meal that can be sprinkled on cereal or worked into hamburgers or whatever; there is almost no down side.

Mr. LAW. This is what the concept was originally, but we had so many other things come into it, the difficulty in removing some of these smells is not one of the easiest things in the world.

The CHAIRMAN. No; that's why I was curious. I have visited enough fish plants and been on enough fishing boats. I know the odor.

I was curious how you would get rid of it.

Mr. LAW. We are embodying some of the principles used in common procedures today, and I think maybe if we have a chance I'll show you what we can do down at the plant.

The CHAIRMAN. You are also doing some experimentation to enhance the potential for developing a stronger fresh fish market in the United States. Do you want to elaborate on that a bit?

Mr. LAW. It is probably a principle that is fairly common, but we just perhaps go one step further; we've worked with several of the processors in the area and we are continuing experimental work now with merely using certain types of dips that will prolong the life of the fishery product and hopefully then we can get fish into the areas that haven't gotten good fish in the past.

The CHAIRMAN. You can give it a longer shelf life?

Mr. LAW. Yes, that is exactly right.

The CHAIRMAN. Thank you. I have no other questions.

I'll see you when we finish here and go over and take a look at it.

Gentlemen, thank you very much.

The reporter is going to change his tape, and when he is ready, we will go with Jim Lauman, William Young, Anne Squier, and Colonel Connell.

STATEMENT OF JIM LAUMAN, OREGON DEPARTMENT OF FISH AND WILDLIFE

Mr. LAUMAN. Senator, my name is Jim Lauman. I am representing the Oregon Department of Fish and Wildlife. Jack Donaldson sends his apologies for not being able to attend the hearing today, but the Governor has arranged a different schedule for him.

The CHAIRMAN. Go ahead.

Mr. LAUMAN. Senator, some of the comments that you received from the last panel I think should be clarified a little bit perhaps with an explanation of how the ports and the agencies have interacted over the past years. First of all, Oregon has relatively few

estuarine areas, and those areas are of course very valuable for fish and wildlife resources, and recreational and other values.

Port planning and involvement in port activities was on a catch-as-catch-can basis for a number of years. There was rather a limited amount of advanced planning, advanced coordination in regards to these types of projects. There also was an apparent conflict between the objectives of different development interests and those of resource agencies which resulted in, I believe, rather an undesirable situation.

I believe, however, that that has changed significantly with the adoption of Oregon's coastal management plan, and I think that we are seeing very positive coordination and very positive planning between these groups. I personally have participated in the planning processes in the Port of Astoria area, in the Yaquina Bay area, and within Coos Bay. The coordination between resource agencies and local jurisdictions including port officials has been outstanding. I think that we have reached excellent agreement on planning designations for future port and industrial sites, and I believe this is a turnaround in the situation that we have had, say, 15 or 20 years ago.

The CHAIRMAN. Let me interrupt and ask a question. It was obvious from the panel's report that they don't think so, although they, in response to a particular question, centered on LCDC. It was obvious that they think the planning process for them is getting worse and more frustrating rather than better.

Mr. LAUMAN. I think that part of their frustration, Senator, is based on the fact that none of the estuary plans are finalized, so the fruits of these efforts are not being experienced at the degree which they will once those plans are finalized and approved by LCDC.

The CHAIRMAN. Why aren't they finalized?

Mr. LAUMAN. Well, the local jurisdiction in charge of getting a plan together, which is normally the county, has not completely finalized the plan and had it proceed through the LCDC acknowledgement process.

Astoria is very close, Newport is, I believe, very close, Coos Bay, Steve, I believe is right, is probably a year to a year and a half away.

The CHAIRMAN. And you think once those are finalized, when they know what can be and what can't be done in certain areas, a great portion of their frustration will disappear?

Mr. LAUMAN. I believe that very strongly. What the planning process provides with its provisions for State and Federal consistency is predictability on both parts, on the part of the resource manager and on the part of the port or industrial development interests. both sides have predictability; we do not look at each proposal on a case-by-case basis and wholly on its own. You can look at it in its relationship to the whole, which of course was done during the planning process. So I'm very positive, I have a very strong outlook in terms of improved relations and improved coordination with these port jurisdictions and I think better relationships all the way around in regards to furture developments.

I also believe that the citizens of Oregon are fairly well informed, and I believe that their support of that program should be taken

very seriously, by not only State officials but State and Federal agencies need to put a lot of confidence in the voting record of the citizens of this State.

You asked a question, I believe, of the other panel about why Newport seemed to develop with less controversy.

One of the reasons for that has been, I believe, the very excellent record of the Port of Newport in being upfront and willing to cooperate with the agencies, taking the agencies into their planning process in advance of projects. That port has had an extremely good record of coming to agencies in advance of when they would go out for permit applications, bringing the agencies up to date in what they are proposing to do, making meaningful modifications at the request of the agencies before the permitting process and that has allowed of course an expedited process in terms of getting the needed permits and carrying out their project.

The CHAIRMAN. I won't say it's a trick, but this is a tactic that many successful organizations and people use simply co-op your possible opponents by bringing them in and giving them either a chance at participation or at least a sense of participation. They may not actually be involved but they think they are, and that eliminates many of the problems.

Mr. LAUMAN. Well I believe that the planning process has basically forced this on us, I think that it is going to be extremely profitable in the future. Just to give you some indication of the results of a couple of these planning efforts, recognizing that the plans have not been fully approved, within the draft Coos Bay Estuary plan, there is somewhere in the neighborhood of 2,300 acres of shore lands within that estuary designated for development. Within the Lower Columbia River Estuary, the Clatsop County-Astoria area, the draft plan identifies somewhere in the neighborhood of 1,000 acres for port industrial development, including all of the sites which the port mentioned as having possibilities for coal shipment, so the planning process is working and we are extremely optimistic that it will expedite needed port developments in the future.

[The statement follows:]

STATEMENT OF JACK DONALDSON, DIRECTOR, OREGON DEPARTMENT OF FISH AND WILDLIFE

I am Jack Donaldson, Director of the Oregon Department of Fish and Wildlife. I appreciate the opportunity to speak to you today on this subject of concern to many coastal resource managers and developers.

The Oregon Department of Fish and Wildlife recognizes the role of ports in furthering the Nation's interstate and international commerce. Oregon's coastal management program, approved by the Office of Coastal Zone Management, establishes a process for planning in Oregon's estuaries taking into account environmental, social, energy and economic factors. Port authorities and state and federal agencies are participating actively in this process with affected local jurisdictions. Land use plans for Oregon's deep draft estuaries, Columbia River, Yaquina Bay and Coos Bay, are being formulated via programs which involve representatives of local, state and federal governmental units in the decision-making process. Estuary plans completed through this intergovernmental decision-making proces will insure, with the state and federal consistency provisions of Oregon's Coastal Zone Management Program, predictability for the involved port authorities, and for agencies with environmental resource management responsibilities.

The high degree of coordination achieved during estuary plan development has developed lines of communication and process which, if adequately used by development interests, will facilitate projects consistent with approved plans and allow plan

amendments necessary for the flexibility needed to respond to local, regional, and special development concerns.

This new era of coordination between port development interests and those concerned with management of natural resources allows for orderly port and industrial development in Oregon's estuaries when consistent with natural resource capabilities. Orderly growth does not mean that all projects will proceed, since incompatability with valuable natural resources or inconsistency with Oregon's Coastal Zone Management program may occur in some cases. Project proposals not compatible with local jurisdiction comprehensive plans will require lengthy coordination to insure the project is incorporated into future plan amendments.

The continuation of this era is contingent upon maintaining open communication lines, following Oregon's Coastal Management Plan and existing state and federal regulatory processes.

Thank you.

The CHAIRMAN. Mr. Young?

STATEMENT OF WILLIAM H. YOUNG, DIRECTOR, OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

Mr. YOUNG. Yes, Senator. Bill Young, Director of the Department of Environmental Quality.

I could summarize, I suppose, the comments that we offered, although our comments themselves were quite brief, by saying that we were asked to comment most particularly on coal and grain handling; and there is good opportunity to comment on that, I guess, because we do have a draft permit out, which we included as an appendix [1] for our testimony, to the Port of Portland for a coal-handling facility that they made application to us for in April of this year, I guess.

Let me say that in a general sense, that facilities that handle either grain or coal tend to be more of a localized nuisance kind of a problem than they are a complex and complicated air quality problem. You tend to have problems not because you are combusting that material, but simply because you are handling it. The size——

The CHAIRMAN. Now wait a minute. Slow down here. Now run that by me again.

Mr. YOUNG. One of the kinds of problems you can have in air quality, Senator, is if you are combusting material.

The CHAIRMAN. You are burning the material?

Mr. YOUNG. You are burning the material; you begin to generate certain kinds of products into the atmosphere by way of emissions that can be very complicated and may require modeling and calculations on what you are doing to a substantial airshed and so on.

The CHAIRMAN. That is not the problem with coal or grain?

Mr. YOUNG. That is not the case with either coal or grain handling because our problem there is not converting that by virture of heat and combustion, but is simply the handling of it, so the problems tend to be more localized. They could be characterized, I suppose, as more of a nuisance-type of problem. The size particle that comes off of either of those facilities tends to be relatively large and so somewhat less implicated in potential health problems.

As a result of that, the kinds of controls we would require for either grain or coal handling will be very similar, no matter where they are located. It will not make a great deal of difference wheth-

[1] The appendix was not reproducible and is in the committee files.

er or not you are in a very complicated or a very tight airshed, like you have in Portland, or whether you are in an airshed like it exists in some other port, where that is less of a problem, it is really a nuisance.

The CHAIRMAN. What kind of nuisance?

Mr. YOUNG. Generally speaking, that material falling out on surrounding uses, and that nuisance might very well have an impact up to distances of a half mile or more without control, and after one puts controls on ports to prevent that, as you will note if you review the permit we have issued to the Port of Portland, those controls largely have to do with dampening that material so that it has less tendency to get airborne. You put some kind of a crusting agent in so you can hold the damp stuff where it is until you want to move it, and then of course you have got a problem of treating the water to be used, as well as a much more substantial volume of water that will run off of a fairly good-size facility, like you would have particularly in coal handling, where the storage typically would be outside. It will be subject to having a good deal of rain fall on it in any of our areas where we are talking about ports, and that water will be contaminated to the point where it has to have some treatment.

So, in general terms, we are talking about nuisance problems. As a result, we talk about the same kind of controls no matter where it occurs. Because it is a nuisance problem, the specific location becomes important. If you have residential or commercial activities immediately proximate to those kinds of facilities, additional levels of control may be needed that would not be needed if you have got the advantage of some distance.

The CHAIRMAN. You have pretty much determined that noise is not a problem on these unit trains?

Mr. YOUNG. Our noise control section has looked at the likely frequency of trains coming in to the port facility in Portland, and they are talking there in terms of a throughput something on the order of 12 million tons a year, this being the scale of the facility. It was concluded that coming into that location the trains themselves would not pose a violation of our noise standards. The loading and unloading facility may have to be carefully located or may have to be buffered to avoid noises in the immediate locations.

In terms of grain handling, we have had discussions here with Astoria about either a new facility or the revamping of the existing facility, and I might say that we have somewhat different standards if we are talking about revamping an old facility as opposed to building a new.

If a new facility were built, we would expect to see some of the bullet-type nozzles that are being used in ports in grain handling now which we believe to be state of the art. We would expect to see some substantial controls on the covering of hatches while that loading occurs to hold down the dusting that occurs. So, in general, Senator, the kind of controls we are talking about would be the sorts of things that attempt to keep a facility like that from having an adverse air or water impact on surrounding facilities, and the attached permits that we submitted with our testimony is our cut at what both the air and water controls would look like on a

facility like the one that was presented to us by the Port of Portland in April.

[The statement follows:]

STATEMENT OF WILLIAM H. YOUNG, DIRECTOR, OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

The Committee staff asked that our remarks specifically focus on the environmental controls that would be required of a coal or grain handling facility in either Portland or Astoria. Our concerns would focus on preserving both air and water quality.

AIR QUALITY

Facilities that load either coal or grain are more nuisance type problems than complex air pollution problems. The particles from these facilities are non-toxic and relatively large, the majority being over 60 microns in size.

Even though Portland violates clean air standards, and Astoria meets standards, the pollution control equipment required on loading facilities in either location would be similar—the desire being to abate nuisance conditions.

Several other general factors would weigh on the Department's decision of the appropriate level of pollution control for a facility located either in Portland or Astoria:

1. As nuisance conditions can persist up to one-half mile from the facility, location of the facility is important. Proximity to existing commercial or residential property would be a factor in pollution control equipment.

2. More stringent control requirements are applied to new facilities, while the cost-effectiveness of control equipment is a factor when re-tooling existing facilities.

With those caveats in mind, the approach we would take in air pollution control is illustrated by the preliminary permit issued by our agency to the Port of Portland for a coal handling facility at Rivergate. (copy attached)

The preliminary air permit issued to the Port of Portland requires an extensive watering system that could apply water with an appropriate wetting or crusting agent throughout the entire facility. Weather monitoring and particulate monitoring is required to ensure compliance with permit conditions, along with a system, yet to be designed, to prevent visible emissions during loading.

Our staff has met several times with the Port of Astoria to discuss the possibility of a new grain loading facility, or re-opening of the existing facility. We believe that a new ventilation system and baghouse-type controls would be necessary. Decreasing internal dust buildup in the building would also result in safer working conditions. Hatch tents or equivalent control systems to prevent visible emissions during loading would be required. Should a new facility be located in Astoria, we believe that bullet spout loading equipment, similar to that applied to some terminals in the Portland area, are state-of-the-art controls, and we would push to have them installed.

WATER QUALITY

The same standards would be applied to a coal handling facility in Astoria, as were applied to the Port of Portland's facility. Settling ponds were required to decrease suspended solids in the effluent, along with careful monitoring of the pH and liming to neutralize the effluent. Each mine source of coal will have to be tested for the presence of heavy metals, along with monthly testing for heavy metals in the effluent. Few heavy metals are expected with low-sulfur western coal. Should heavy metals appear, the settling ponds will be designed to precipitate the metals out prior to discharge. The water pollution equipment is designed primarily to handle rainwater run-off draining from the site. Dust supression water sprays will be a small fraction of the total effluent.

NOISE

Because of the infrequency of trains, we do not believe that violations of the noise standards will occur during transportation.

Loading and unloading facilities located near residential property may require noise controls to prevent exceeding standards. Primary noise sources would include grain or coal movement and ventilation systems.

The CHAIRMAN. Ms. Squier?

STATEMENT OF ANNE W. SQUIER, VICE CHAIRMAN, OREGON LAND CONSERVATION AND DEVELOPMENT COMMISSION

Ms. SQUIER. Good morning, Senator.

I will try to highlight several of the points in the testimony. I think they boil down to two basic points. One is the function of the comprehensive estuary plan as it relates to development proposals, and the other is the increased agency coordination, both interagency and up and down between local government and special districts and the agencies as it relates to development proposals.

The land use planning program in Oregon is one that attempts to take a comprehensive look at everything. It does fold in economic developments in a number of the various goals.

One of the points made this morning was the scarcity of good port sites left on the coast. The goals directly address that and require that any very appropriate ones be set aside for water-dependent use.

The CHAIRMAN. Elaborate on that a little bit. If you have heard the criticism of the LCDC, tell me where you think port development, economic port development fits in with our land-use goals?

Ms. SQUIER. It is directly addressed in goal 16, the estuarine resources goal, which does require that sites suited for water-dependent development be designated for that and not be allowed to be frittered away, if you will, on things that would interfere with future water-dependent use. That's been one of the issues here in the CREST planning program, to see that noncompatible uses proposed for some of the very appropriate sites not be planned for. Even though one does not know what is going to happen on those sites, they should be held for future water-dependent use because we do have only a handful of especially suitable development sites.

The CHAIRMAN. By water-dependent use, do you mean shipping or——

Ms. SQUIRE. Shipping or it can be water-dependent recreational use, anything that requires an interface with the waterfront.

As I noted, there were four major categories of impediments to port or water-dependent developments-physical, economic, and regulatory constraints, and the failure to get an overall look at development planning.

That lack of a comprehensive look is what I have seen as the major impediment in the past. I hear criticisms of the statewide planning program as holding things up, but looking back 15 years, 12 years, at the kinds of permitting required for development under our fill and removal law in the late sixties, for example, I don't see a slowdown as a result of the planning program. I don't see the expected speed-up yet, for the reason that Mr. Kelkins pointed out. That is, we don't yet have all of those plans in place.

I can look at what occurred with the Yaquina Bay plan, which was in place in the early seventies and I think really did help the Port of Newport with its South Beach Marina and some other less extensive developments. I can look at the lower Willamette River management plan an example out of the coastal area. It in fact expedited a number of things at the Port of Portland and in the city of Portland because it provided the division of State lands with an overview of what is going to happen in the entire Portland Harbor and made it possible to make decisions knowing what the

trade-offs were. That's what we are after on all of these estuary plans.

When they are in place they are going to fold in those economic projections, the physical and transportation constraints, and allow us to concentrate development efforts on the places where it can happen.

Resource agencies of course do have concerns about preserving important parts of the estuary. That also is part of what is folded into the plans.

I did attach to the testimony, and I hope it did get to you, a copy of the mediated agreements for this Columbia River estuary system,[1] because I think that's a very important example of a situation where all of the affected agencies, local governments and special districts, have sat down and within the context of the statewide goals and the agency statutes, come to some agreement about where development can take place, realistically what the constraints are, and what the permitting requirements are going to be in the future. That doesn't mean there aren't some processes still to be gone through, but I think clearly developments on those sites will be much more expeditiously processed than anything we have seen before.

The Commission has looked at other kinds of constraints, non-planning constraints on port development through the Oregon port study in 1980 as well as the Oregon recreational fisheries port study previously.

Most of those constraints have been mentioned this morning, railroad bridges, traffic constraints, and the like.

The point that I would like to make is that since a lot of these things are fairly expensive constraints to overcome and ports do function on a basis of throughput, it is important that once the potential throughput in the reasonable future has been identified, we concentrate on seeing that enough public funds, port funds and the like are concentrated where realistically things can happen, rather than continuing without the comprehensive overview, without the classification of estuaries so that one knows where shallow draft, where deep draft is going to occur. If this is not done, there is not the opportunity to really funnel all the State's resources and whatever Federal resources are available in one direction or two directions.

The CHAIRMAN. Would you agree with Mr. Murray's comment that given adequate help, every Oregon port could flourish?

Ms. SQUIER. Frankly, from what I know, I would not agree with that. I don't have the expertise he has, but for instance, the Oregon port study in terms of economic throughput does not indicate that kind of growth in product to be handled. In terms of the recreational fisheries——

The CHAIRMAN. What do you mean by throughput?

Ms. SQUIER. A port is a handler, it is either putting material coming externally through inland, or taking inland products and moving them out.

The CHAIRMAN. OK.

Ms. SQUIER. But the Port study, I'll leave one here if you need it, what it does is project, for instance, with timber, grain, coal, what

[1] The attachment is in the committee files.

the potential throughput is, look at the number of berths that would be necessary, the kind of channels that would necessary and project over the next 20 or 25 years how many new berths.

The CHAIRMAN. Mr. Murray was talking primarily in most of those ports about recreational and commercial fishing.

Ms. SQUIER. Yes; that would look at the projections in the recreational and fishery study which I think was completed 2 years ago.

The CHAIRMAN. But you still disagree with him, you don't think that sites like Bandon and Reedsport and every harbor up the way can make it as a recreational and commercial fishing port?

Ms. SQUIER. If one looks at the cost of maintaining all of them as safe ports, I don't think that the projections I have seen support that. I don't have the figures from that recreational study off the top of my head. I am sorry.

The CHAIRMAN. I just want to make sure I understand exactly what you have said; even if they are maintained safely and are dredged adequately, there is not enough potential in the recreational and commercial and tourist fishing business for the growth of those ports?

Ms. SQUIER. I misunderstood your question. I can't answer that question. That may well be, but only if one discounts the costs of maintaining the entrances and channels. I was addressing the question of how many such ports the public can afford to keep open with the number of recreational vessels, commercial vessels that are going to be on the waters. Commercial is the second question because you are talking also about handling facilities at the dock. Recreational vessels, I am sure, will continue to fill a lot of spots if they are made available unless transportation becomes much more constrained.

I think I would like to comment again on—highlight again the real problem with the amount of land available for future port development. Coos Bay is a good example. Mr. Felkins made a very good point about the large amount of land that is held by private companies as a percentage of what has potential for development. There really is a need for the ports to have a comprehensive look and be able to push forward toward the kind of multi-use berths that have been projected to be needed.

Two final points; one is the fact that the Oregon land use planning program does recognize the competition between ports as one of the things that in a sense is a constraint, and that is one of the reasons for the fact that we do have an estuary classification system that tries to identify those estuaries that are suited for natural, conservation, shallow draft, or deep draft use in order to try to set some kind of agreed-upon stage from which planning can take off.

That leads directly into the question of intergovernmental cooperation. We have had over the past 10 or 15 years a good deal of growth in the idea of one-stop permitting, cooperation between State agencies, cooperation from the State and Federal agencies. The land use program puts another piece into that, and that is between State and local government units.

I think the CREST mediation process and some of the other types of task forces we have had in the last couple of years are very good examples of a situation where it is not just bringing

someone into the process so that they feel that they have been a part of it in a cosmetic sense as was suggested earlier, but involves really setting the people down to trade their legitimate needs and concerns—what kinds of constraints are on agencies by statute from the legislature or the Congress, what real constraints are on ports or local governments—and try to reach some kind of agreement on what kind of pattern and planning and development will accommodate best all of those needs.

I think we have made real progress, and expect within the next 2 years to see most of the estuaries on the Oregon coast planned in a comprehensive sense, as was Yaquina Bay or the lower Willamette, 10 years ago, and that is really going to be a great help to those developments that can occur realistically.

The CHAIRMAN. Thank you.

[The statement follows:]

STATEMENT OF ANNE W. SQUIER, VICE CHAIRMAN, OREGON LAND CONSERVATION AND DEVELOPMENT COMMISSION

The Land Conservation and Development Commission (LCDC) has been charged with the responsibility of ensuring that land use planning within the State of Oregon diversifies and improves the economy of the State (Statewide Planning Goal 9) and provides for appropriate water-dependent uses within coastal shorelines (Goal 17). These two goals are referenced in the Oregon Coastal Management Program, and the LCDC exercises these program authorities as the designated Oregon agency for coastal management under the Federal Coastal Zone Management Act of 1972 as amended.

The LCDC has been in a position to witness many successful port developments as well as many failed developments. From the vantage point of an LCDC Commissioner, I have been able to identify four major categories of impediments to Coastal and Lower Columbia River port development in Oregon, these are: physical and topographic constraints, economic conditions, regulatory constraints and the failure to address port development planning in a comprehensive manner.

By far, the greatest impediment to port development in Oregon has been the failure by many ports to view port development in a comprehensive manner. The largest coastal ports in Oregon are located in estuaries. These estuaries have a history of conflicting and competing uses and a complex pattern of private and public ownership. The success of any development project depends upon approvals from each of several state and federal regulatory agencies. Before a project can be approved, it must be demonstrated that the public benefits of a proposed development clearly outweigh any detriments to public trust resources, particularly the public's right to navigation, commerce and fishery.

Resource agencies are particularly concerned that the filling or removal of estuarine tidal or subtidal habitat might precipitate an irreversible decline in the already depressed coastal fishery. When these resource agencies review a proposed development as an integral part of a comprehensive estuary development plan, decisions on the acceptability of various environmental trade-offs are easier to make. As estuarine resources continue to decline from their past levels of abundance proposals are reviewed with increased scrutiny. Decisions as to the cumulative impacts of projects are impossible to make outside the context of a comprehensive plan.

There are two ways to obtain development permits from regulatory agencies. Ports can actively involve regulatory agency officials in the development planning process. Once locational decisions have been made as to which parts of the estuary will be altered for development, which parts will be preserved and which parts will be restored to replace lost habitat; the same working partnership can be used to obtain needed permits for developments proceeding in accordance with a comprehensive plan. I have attached for your review a portion of the Columbia River Estuary Plan.[1] These mediated agreements have been signed by the U.S. Army Corps of Engineers, the Environmental Protection Agency, the Fish and Wildlife Service, the National Marine Fisheries Service, the Oregon Division of State Lands, the Department of Land Conservation and Development, the Department of Economic Development, the Department of Fish and Wildlife, Clatsop County, the City of Astoria, the City of Warrenton and the Port of Astoria. These agreements

[1] The attachment is in the committee files.

designate areas for new and expanded port development within the lower Columbia River, including alternative sites for coal transshipment. These accords specify which areas will be developed and what kinds of water dependent development will be allowed. As developments proceed in compliance with the agreements, permits will be forthcoming.

Another way to proceed with port development is to propose single projects outside the context of a comprehensive plan. Since information concerning dredged material disposal needs, environmental mitigation and cumulative impacts are usually scanty or nonexistent for many of these single proposal projects, regulatory agencies have great difficulty in reviewing these projects for approval. Often these permitting delays cause project sponsors to seek political intervention in order to obtain the necessary permits. Intervention is sometimes successful and is sometimes not. The most recent example of failure was the proposed extension of a North Bend airport runway into the Coos Bay estuary. The single project approach has been demonstrated time and time again to be much less likely to succeed than the comprehensive approach. Mr. Steve Felkins, Director of the Port of Coos Bay, was quoted, "We've got to get this (Coos Bay Estuary) Plan finished . . . it's hurting us with the permits not having one." in a recent edition of the Coos Bay World.

Examples of ports which have met with greater succeess, due to the completion of comprehensive development plans, are the Port of Newport and the Port of Portland. The Yaquina Bay Plan, begun in the middle 1960's, was responsible for the relative ease in which the Liquified Natural Gas Facility and the South Beach Marina achieved the necessary approvals. Mr. Fred Weakley, former Director of the Port of Newport, said at that time.

"Not only are immediate needs recognized . . . economic planning can produce direct and real benefits for the community's future. Yaquina Bay is the only bay and estuary in the world that has water use planning, land use planning, and its all zoned. If we had not got the people involved in this planning process, we could not have passed a two and one-half million dollar general obligation bond issue to help finance the port share of the six million dollar marina project that we're starting across the bay."

Similarly, the Lower Willamette Plan, though now out of date, has aided the Port of Portland in its development program.

The LCDC has examined other non-planning constraints to port development in the Oregon Ports Study—1980. This study was a cooperative effort between the LCDC, the Oregon Department of Economic Development and the United States Maritime Adminsitration (MarAd). This study was partially funded by the Federal Office of Coastal Zone Management, through Oregon's Coastal Management Program; a copy of the study is attached for the record. The Oregon Ports Study identified the following physical constraints to port development in Oregon: (1) the railroad bridge and upper bay dredging in Coos Bay, (2) the 48-foot depth at the mouth of the Columbia River, (3) projected shortages of upland dredged material disposal sites in the Columbia, Yaquina and Siuslaw Rivers, (4) the condition of the Burlington Northern rail tracts serving the Ports of Astoria and St. Helens, and (5) the traffic constraints of the Bonneville Lock.

Economic constraints were identified through port commodity flow projections using MarAd data. Since ports make their money through put, expansion cannot be financed unless it can be reasonably anticipated that increased business will result. The declining timber resources, particularly in the South Coast area, were identified as a major supply constraint on Oregon's ports. Embargoes on grain exports and restrictions on log exports were also viewed as major constraints.

Port expansions can be financed through cash flow from existing operations, borrowing from the Port Revolving Fund, general obligations bonding, operating tax levies and port revenue bonding. Though all these mechanisms exist, development may be restrained in Coos Bay and the Lower Columbia by the inability to acquire needed land. This problem is compounded in some areas by the large amounts of undeveloped but potential port lands which are being held by large corporations for investment purposes, and by the past history of cities and counties committing water front property to non water-dependent development. The Newport waterfront contains many examples of this. A more recent example was the approval of the filling of a marsh in Young's Bay for an automobile dealership. This fill was adjacent to the area of greatest biological productivity in the entire Columbia River Estuary. The loss of an area identified as a prime site for mitigating the adverse impacts of estuarine alterations has placed constraints on a near-by area designated for port development.

Generally speaking, the Oregon Port Study—1980 commodity flow projections to the year 2000 show good growth potential in the Lower Columbia River (a need for 21 berths for existing commodities and six berths for new commodities, with lands

needs of 490 acres for existing commodities and 260 acres for new commodities). Modest growth is projected for the Port of Coos Bay (a need for three more berths under existing land use patterns and a need for six more berths if port facilities are to be consolidated in the lower bay with land needs of 40 to 100 acres). All other coastal ports show steady or declining commodity flow projections. For these ports, expansion will be limited to facilities for recreational boating and commercial fishing.

Competition among ports for public investment is another constraint to port development. Declining public resources should be concentrated in order to keep Oregon's major ports economically healthy; continued fragmentation of public investment is likely to sink below the threshold of providing viable economic benefits to any port. The LCDC has partially addressed this problem by classifying estuaries into natural, conservation, and development categories. Development estuaries are further classified as deep or shallow draft development with 22 feet being the maximum channel depth allowed for shallow draft estuaries. Coos Bay, Yaquina Bay and the Lower Columbia River are deep draft estuaries; shallow draft estuaries include Tillamook Bay, Depoe Bay, Nehalem Bay, the Siuslaw River, Umpqua River, Coquille River, Rogue River and the Chetco River. There are five natural estuaries and six conservation estuaries which serve to maintain the economic viability of Oregon coastal fisheries. These estuaries may not have maintained channels or jetties. The classification of estuaries is only a partial solution; a mechanism to prioritize public investment for purposes of port expansion and channel maintenance is sorely needed.

Estuaries classified for development are required by the LCDC to designated adequate lands for water-dependent development, to implement a comprehensive dredged material disposal plan and to provide adequate lands for mitigation. The presence of these elements of a comprehensive land use plans has, in many cases, facilitated public investment by involving state and federal granting agencies in the designation and plan development process. In any event, when these plans are completed by coastal jurisdictions they will greatly facilitate the issuance of permits when investment is forthcoming.

The final constraint to port development that I wish to mention is the fragmented nature of governmental regulatory processes. This problem was partially addressed by the Federal Coastal Zone Management Act. The Oregon Coastal Management Program, which incorporates the completed comprehensive land use plans of coastal cities and counties, is recognized as the single land use document for the Oregon Coastal Zone by both state and federal agencies. The following is a quotation from the Federal Office of Coastal Zone Management's 1980 evaluation of the implementation of the Oregon Coastal Management Program:

"Perhaps the most important contribution which the Oregon Coastal Management Program has made regarding intergovernmental coordination and cooperation within the State of Oregon has been through the use of the Statewide Planning Goals. The Goals have become a common denominator for discussions among resource agencies, local governments, and public and private interest groups. This affords different groups at all levels of government the opportunity to discuss management issues through defined statements of statewide interests."

The process described is far from all encompassing; but as more coastal plans are completed and approved, the LCDC expects to witness even more cooperation between regulatory agencies and local governments. it is true that there are problems with existing federal law; there are no affirmative provisions within the federal consistency section of the Act, and the Environmental Protection Agency water quality authorities are exempted from compliance. I nevertheless do expect to see greater cooperation due to the provisions of the Federal Coastal Zone Management Act.

I thank you for this opportunity to testify. Though few coastal plans are approved at this time, I will assure you that most coastal plans will be completed, and approved by the LCDC, within two years. The continued insistence by the LCDC that these plans address port development in a comprehensive manner and that sufficient and realistic implementing mechanisms be contained within these plans will help to provide the conditions necessary for the maintenance and expansion of an economically sound port system in Oregon.

[The Daily Astorian, Astoria, Oreg., July 23, 1981]

Estuary Mediation Agreement Gains Endorsements

(By Chris Genna)

For better or worse, a mediated agreement among officials of local governments and state and federal agencies will guide industrial development of the lower Columbia River.

The agreement, signed by 12 negotiators representing all parties involved, was reached literally in the 11th hour, at 11 p.m. on the day of a self-imposed deadline, June 30.

Letters are beginning to trickle in, confirming that the positions taken by negotiators are supported by their bosses, and the jurisdictions they represented.

Ed Zajonc, director of the Division of State Lands, already has confirmed that his agency will support the commitments made by his negotiator, Stan Hamilton.

Clatsop County commissioners have unanimously passed a resolution endorsing the agreement. Their negotiator was Commissioner Roger Berg.

Other negotiators at the sessions were:

Jean Hallaux, for the City of Astoria; Gil Gramson, for the City of Warrenton; Roger Shannon, for the Port of Astoria.

Jim Lauman, for the Oregon Department of Fish and Wildlife; Bob Cortright, for the Department of Land Conservation and Development; Jeanne Robinette and Bill Hayden, for the Department of Economic Development.

Jacqueline Wyland, for the National Marine Fisheries Service; Ron Lee, for the federal Environmental Protection Agency; Marge Kolar, for the U.S. Fish and Wildlife Service; Jerry Black, for the U.S. Army Corps of Engineers.

Those 12 negotiators were pushed together by mediators Sam Gusman and Verne Huser of the Seattle-based Institute for Environmental Mediation.

What they decided, on a pragmatic level, was a way local governments might justify the exceptions they seek to statewide goals in their comprehensive land-use plans.

But on a loftier plane, they hammered out general agreements about what kinds of maritime development would take place in the Astoria area, and how development would proceed.

Those agreements included a lot of qualifying language, a lot of loopholes. So many, in fact, that some negotiators questioned their value.

The overall agreement allows development at every one of the five sites the negotiators discussed. And it might be massive development; natural resources agencies' negotiators agreed to consider acres of fill in the estuary, and millions of cubic yards of dredging.

The agreement provides for at least one of every type of maritime industrial facility for which the area's economic plan foresees a need—coal yards, grain elevators, wood products, export facilities, deep-draft berths.

Mike DeLapa, director of the Columbia River Estuary Study Taskforce (CREST) staff, said the document faces two important tests, one immediate, the other more distant.

The first test, DeLapa said, will be when the CREST plan, and the local governments' plans, come to the state Land Conservation and Development Commission for "acknowledgement," the ruling whether or not the plans meet statewide land-use goals. The question then will be: Are the plans acceptable?

The second test will be when a developer or local government jurisdiction, such as the Port of Astoria, applies for permits for a specific project. The question then will be: Will the resource agencies abide by or renege on the idea when it's time to issue the permits?

The first test is right around the corner. Warrenton's plan will be up before LCDC Aug. 6. Clatsop County's plan is scheduled to go before the commission Aug. 7 and Astoria's plan faces the test sometime after September.

Astoria City Manager Dale Curry said he had mixed feelings about the agreement. "I guess it was good to get some things settled, but I told Jean (Hallaux) not to give away anything we didn't have; and I guess they left the door open, for both sides."

Hallaux himself said the agreement will be far more helpful to local development interests than to local governments, whose main interest is plan acknowledgement.

"It gives them (the Port of Astoria, the State Land Board or other potential developers) a lot better idea of what they can do with a site if they acquire it.

"I just have the feeling," Hallaux said, "that when a developer does come in, his plans and needs will be a little different than what we negotiated, and that will

throw out the whole thing. You just can't anticipate what development needs will be very far in the future."

Astoria city councilmen are reviewing the agreement and are expected to act on it soon.

Warrenton city planning commissioners already have endorsed the deal and Warrenton city commissioners are reviewing it.

Port of Astoria Executive Director Floyd Shelton presented copies of the agreement to the port commission last week for review.

Shelton said the port's negotiator, Roger Shannon, spent 14 "long, arduous and at times frustrating" days in the mediation, and on several occasions, "we were prepared to just walk out and bunch the whole thing."

But, Shelton told commissioners, the document while "not all we wanted does provide some predictability (about development plans at various port-owned sites)."

"It's the best we could negotiate," Shelton concluded, commending Shannon's "tremendous job" in representing port interests.

Henry Desler, a port commissioner who, as chairman of the CREST Council, had a hand in organizing the mediation sessions, gave the effort high marks.

Desler said the document represents an exchange of information and ideas far more valuable than the agreement itself.

"In the session," Desler said, "there was probably more discussion than the two sides have ever had." He said resource agencies now have a better understanding of what development interests need, and developers more clearly understand what their (agency) concerns are."

"I don't believe it will be as difficult to get where we're going in the future," Desler concluded, "with all the agencies that have signed on to this agreement."

The CHAIRMAN. Colonel Connell?

STATEMENT OF COL. TERENCE CONNELL, DISTRICT ENGINEER, PORTLAND DISTRICT, U.S. ARMY CORPS OF ENGINEERS

Colonel CONNELL. Mr. Chairman, we appreciate being here this morning.

In the summary of the statements and information that we have provided to you from the Corps of Engineers, I would note that this fiscal year has been a very favorable one for us in terms of coastal dredging.

Unlike last year, we had much more favorable weather conditions. In addition, our funding has been in good shape for the most part this year; our projects are progressing very well, both construction projects and dredging.

Fiscal year 1982 also appears to be at this time fairly favorable both in terms of the prospects for dredging and the continuation of studies and projects that we have had underway.

The commercial traffic in the Northwest is continuing to increase very dramatically. Our grain crop this year should be one that busts records once again, and we would estimate that in the Columbia River and out of our coastal ports here that we would have a larger tonnage than what we have experienced last year and the years before.

In the area of coal export, we are currently processing permits at the Federal level through the Corps of Engineers for the Port of Portland to construct a 12-million-ton-per-year facility and a similar facility for the Port of Kalama in the State of Washington. We have indications both from Coos Bay, and Mr. Felkins commented on that, and also from Astoria, that plans there will be coming forward and that we may anticipate some additional detailed studies in terms of permit applications for considerations for coal handling out of those two locations.

In the mouth of the Columbia River study, which is of considerable concern on the Columbia River, that study is now back from

the Waterways Experiment Station. We will be entering now into the public involvement, considerations with the other agencies to determine the ramifications of the economics associated with the proposal, the environmental considerations, and then completing that study. We hope to have that into our Division Headquarters in March 1983.

The CHAIRMAN. What is your hunch on this? You have been around a long time, and could maybe second-guess what conclusions it might reach. Can you keep a 65-foot channel here?

Colonel CONNELL. A 65-foot channel is a very ambitious channel at this time. The study that we are looking at right now is addressing 50-, 55- and 60-foot depths over the bar.

The CHAIRMAN. Correct.

Colonel CONNELL. And the conclusions, I believe, will verify that we need a deeper bar by some number of feet over and above the currently authorized 48-foot depth.

The CHAIRMAN. Is the equipment presently available to do it?

Colonel CONNELL. No, sir, it is not. But over the timeframe in question we will be initiating in fiscal year 1982 the plans for the subsequent replacement of the dredge *Biddle.* That replacement is independent of the study for a deeper channel; it is coincidentally coming at the same time. We will be going forward with plans for the replacement of that vessel. And then this year for the first time we also have entered into contract private dredging, both at the mouth of Coos Bay, in the Coos Bay estuary, and in the mouth of the Columbia River.

The CHAIRMAN. Has that worked out pretty well?

Colonel CONNELL. It has so far. The contractor vessel is a brand-new dredge, so it is cutting its teeth; it is a new design, a very modern vessel, and we are having some inherent problems in the vessel itself, but overall it is going very well.

The CHAIRMAN. Whose vessel is that?

Colonel CONNELL. C. F. Bean Corp., out of New Orleans.

A subsequent study which would address the parameters of providing deep draft over and above the current 40-foot drafts that we have into the Astoria area is currently being looked at within the Congress. Your office, in conjunction with Senator Hatfield's and Congressman AuCoin's is discussing consideration for initiating a study which would look at depths on the order of 60 or 65 feet into the Astoria Bay area. Should the funding for that be initiated that study would be accomplished over a 4-year or longer timeframe, but that's a separate and distinct study subsequent to the study currently underway on the deepening of the bar.

The Bonneville-replacement navigation lock will be a very important question over this next decade. Our projections do indicate that we will reach the saturation point at that location in 1987 or 1988 when we hit approximately 13 million tons. This past year we had 9 million tons through the locks and the growth there is surpassing what the earlier projections had indicated.

We completed the John Day Lock repairs this year. We will have a small amount of work that willhave to be done next year, but for the next decade at least all of the locks, both in the Portland District and in the Walla Walla District do appear to be in pretty good shape. At this time we do not anticipate another problem for

them such as we were faced with this year by closing the locks for 1 full month to correct some major maintenance requirements.

The last item that I would summarize on are the concerns inherent in the St. Helens' eruption. The corps has now submitted the best evidence that we have, based on the first winter rainy season, and the knowledge that's been obtained from our organization, from the U.S. Geological Survey people, the Federal Emergency Management Agency [FEMA], and State entities on the amount of sediments that can be anticipated to come down from the watershed. We have increased our numbers: earlier we had projected a program of major impact, and now we are considering that it could be as long as 15 years. We are recommending that a Washington level task force be constituted between FEMA and the Corps of Engineers and other Federal agencies, which would also have local, State, and regional input, to address the ramifications of St. Helens on a policy basis and to be able to provide input to the administration and the Congress as to what, perhaps, the Federal policies and considerations would be, given that the problem is a much larger problem than we thought it was at an earlier time. We do have indications that that is going forward. The Chief of Engineers has requested that the task force be established.

We have recommended $70 million funding for this coming year on St. Helens, and our recommended program is to continue to extract these sediments in the Upper Toutle Valley area. But I would like to note, because people are concerned about what will happen if the funds are not provided, that the corps, based on experience from last year and our long-term experience with dredging in the Columbia River, does feel that we would be able to keep up with the situation. I do not anticipate that we will be in a situation where we will have the type of navigation blockage that occurred last May. We reestablished shipping then within 4 to 6 weeks. We will not have that type of thing develop again, because the sediments, as they come down, will come over a long time frame and we will be able to deal with the problem in that time frame. But it does portend additional management and control between States and the Federal agencies to address the problem over the longer term. So we do have a bigger problem than we anticipated, but we are also in a very good management profile to be able to address the considerations and to stay ahead of the problem for navigation in the Columbia River.

The CHAIRMAN. I congratulate you again on that work last year, when the mountain blew up. When I saw the original estimates, I never thought you would have that channel to any kind of navigable depth for several months.

Colonel CONNELL. We were pleased, sir.

The CHAIRMAN. Well, you deserve to be.

If we are going to have Astoria as a deep draft port for these behemoth coal-carrying vessels that I am told are going to come on line, we are going to have to have a 65-foot channel, aren't we, over the bar?

Colonel CONNELL. Yes, sir, you will, on the assumption that you will be exporting considerable tonnage out of the bay itself. Both the Port of Portland and the Port of Kalama are very optimistic their export tonnages will come into being. They still have a lot of

work to do on those, both environmentally and from the engineering viewpoint, and, of course, at the present time they do not have facilities constructed. But assuming that that might come to pass, say, over the next 4 or 5 years, you are looking at an additional 20–25 million tons of export on top of the 30 million tons that we currently have going out of the bay.

Each one of these considerations, the growth in the grain commodity, continued growth of materials coming into the country from overseas, and the future growth of the whole north Oregon coastal area as the forest products in the old Tillamook burn area come into being do portend the continued growth of our tonnage out of both coastal ports and certainly the Columbia River, and the consideration for a deeper channel is very much there on the horizon.

The CHAIRMAN. Good, I am glad to hear that.

I have no other questions. I appreciate the testimony from the panel.

[The statement follows:]

STATEMENT OF COL. TERENCE J. CONNELL, U.S. ARMY CORPS OF ENGINEERS, PORTLAND DISTRICT ENGINEER

Senator Packwood, I am pleased to be here this morning and to have the opportunity to discuss the Portland District's involvement in port development and water transportation in general.

I have submitted written testimony to be placed in the hearing record [1] and will now summarize that testimony.

The Corps has been responsible for maintaining Pacific Coast harbors since 1866. Throughout the years, it has been our responsibility to maintain those harbors for oceangoing vessels, principally through maintaining or improving channels, jetties, and breakwaters. At present, the Portland District has responsibility for many shallow-draft and two deep-draft coastal projects, in addition to the navigation channel in the Columbia River.

The Corps also improves, maintains and inspects Oregon's many miles of inland waterways, to provide safe access to ports and harbors.

I will discuss in some detail our principal projects on the Columbia River, because of their importance to the economy of the area encompassed by the Portland District.

At the Columbia River mouth, we maintain a 5-mile-long, 48-foot-deep and ½-mile-wide entrance channel that links the 40-foot navigation channel in the river to the Pacific Ocean. Waterborne traffic over the bar in 1978 totalled almost 27 million tons of primarily grain, ore, rocks and minerals, logs, lumber and petroleum products. Wind and wave conditions at the bar frequently create hazards for entering or departing vessels. We now have a major study underway to examine the feasibility of deepening the entrance channel, to reduce bar-crossing problems. Our report on this study will be completed in March 1983.

Since we began our study of the entrance channel, additional interest in a deeper river channel to Tongue Point, near Astoria, to accommodate deep-draft coal-shipping vessels, has arisen. A deeper channel in the river which would be about 18 miles long, would require a deeper channel at the Columbia bar, probably deeper than the 55- and 60-foot depths we are now studying. I understand that the Oregon Congressional Delegation is seeking funding for a Tongue Point study, which would be separate from our ongoing study of Columbia River at the Mouth.

To move upstream, the Columbia River 40-foot channel extends over 100 miles to Vancouver, then up the Willamette to Portland. From Portland to The Dalles, the authorized 27-foot channel is maintained to 15 feet for use by tows and log rafts. These channels have become a virtual pipeline for northwest grains and other exports, with traffic increasing steadily in recent years. In 1978, over 45 million tons of waterborne traffic used the deep-draft channel from the mouth to Vancouver and Portland. Almost 9 million tons of commerce travelled the channel between Vancouver and The Dalles.

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[1] The attachments are in the committee files.

At present, a significant bottleneck to efficient movement of traffic on the river is the under-sized lock at Bonneville. The existing lock at Bonneville has about half the annual capacity of upstream locks. Our recently completed feasibility report, currently under review in the office of the Secretary of the Army, recommends construction of a new lock to eliminate this bottleneck in waterborne commerce. If approved there, the report will be forwarded to Congress for authorization and eventual funding. We estimate that the lock would be operational about 8 years after the project is first funded.

Turning now to fhe coastal ports:

The Corps maintains two deep-draft ports on the Oregon coast, Yaquina Bay and Harbor and Coos Bay.

A 30-foot channel is maintained to the harbor at Newport. Total commerce across the Yaquina bar in 1978 was over a quarter million tons, about 40 percent of which was sand, gravel, and crushed rock, while logs and lumber accounted for most of the remaining tonnage. Commercial fishing vessels also heavily utilize the Yaquina channel's access to ocean fishing grounds.

A 35-foot channel is maintained to the Port of Coos Bay, along with a 45-foot channel across the bar. Total commerce across the bar in 1978 was over 7 million tons. Major commodities include lumber, export logs, and petroleum.

In addition to these two deep-draft ports, there are several shallow-draft ports on the Oregon Coast with depths from 6 to 26 feet. These ports handled a total of over 1.25 million tons of commerce in 1978. At these ports . . .

The jetties at Nehalem are being rehabilitated now; work should be completed by September 1982.

The south jetty at Tillamook was extended to its full length of 8,000 feet in September 1979.

At Depoe Bay, dredging of the harbor and rock removal in the channel is being performed this summer, as part of our periodic maintenance program.

For the Siuslaw River, jetty extension work has been authorized and a shoreline monitoring program is currently underway as part of the design and environmental studies.

Normal maintenance of channels in the Smith and Umpqua Rivers is being performed as needed.

For the Coquille River, the Port of Bandon has requested Federal assistance in deepening the access channel; a feasibility study addressing this concern has recently been initiated.

At Port Orford, normal maintenance dredging was performed this year.

As requested by the Port of Gold Beach, we are now studying navigation problems, including shoaling at the mouth of the Rogue River, and we are also looking at the Federal interest in maintaining the small-boat-basin breakwater.

For the Chetco River, the Port of Brookings, commercial fishermen, charter-boat operators, and a tug and barge company have all expressed concern over the continuing threat to vessels caused by what is viewed as inadequate entrance conditions (the current jetties do not extend through the surf zone, and shoaling results). We have recommended jetty extension and channel deepening.

Now, to our dredging program. Our fleet of hopper dredges, the *Biddle*, the *Pacific*, and the new *Yaquina*, are used each year to maintain the Columbia River channel, the channel across the bar, and the various side channels and coastal ports. This year, a new private hopper dredge, the *Eagle I*, (as been used at Coos Bay and at the mouth of the Columbia. The *Eagle I* is the world's largest split-hull hopper dredge. Built by C. F. Bean Corporation in New Orleans, it has a capacity of up to 6,000 cubic yards.

Our existing hopper-dredging fleet and private dredges are adequate to maintain existing navigation channels. If the Columbia channel is to be deepened, additional capacity will be needed.

Lastly, let me just touch on our Mount St. Helens work, as it relates to navigation. As you know, the Columbia River channel, which was plugged at the mouth of Cowlitz River, was quickly reopened after the big eruption last year, by a combined fleet of our hopper dredges and private pipeline dredges. The restoration work that has been done since in the Cowlitz and Toutle River drainages has been done to prevent flood damage along the Cowlitz River and to help keep this vital navigation channel open. We are now about halfway through a 14-month contract to remove another 7 million cubic yards of material in the Columbia channel near the mouth of the Cowlitz River, and we anticipate continued dredging requirements in the area. If additional measures are performed in the Toutle and Cowlitz river basins in the future, the amount of needed dredging in the Columbia would be reduced. If no additional work is done in these tributaries, the amount of dredging needed to keep the Columbia channel open would be greater.

Thank you, Senator. I will be happy to answer questions.

The CHAIRMAN. We'll adjourn and then go over and visit the fish protein plant. I am sure if any of the press wants to go along, there would be no objection.

We stand adjourned.

[Whereupon at 10:55 a.m., the hearing was adjourned.]

85-765 O—81——4

OREGON PORT DEVELOPMENT

THURSDAY, AUGUST 27, 1981

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Portland, Oreg.

The committee met, at 9 a.m., in the Lloyd Building, 18th floor, 700 Multnomah NE.; Hon. Bob Packwood (chairman of the committee) presiding.

OPENING STATEMENT BY THE CHAIRMAN

The CHAIRMAN. We will start with the panel of Lloyd Anderson, Floyd Shelton, Richard Bressler, and Howard Burnett. Before they come up, let me just say a few words regarding the specific purposes of these hearings, and there are two or three.

One, in the hearings yesterday at Astoria, a number of witnesses from the Oregon coastal ports testified. I was trying to get them to put on the record what they thought would be the highest and best use of their ports. Every port cannot be a San Francisco; I think all the money in the world cannot make some ports a San Francisco. There is, however, a place for a variety of ports offering a diversity of services that can be profitable, and can be very worthwhile from the public's standpoint. This is one thing I was trying to discover.

Two, in order to achieve their highest and best use, what do the ports need in the way of inland transportation connections, what do they need in the way of coal slurry pipelines, if necessary, and what do they need in terms of any kind of auxiliary services?

Three, while some of them did comment on user fees, the principal purpose of these hearings is not to discuss user fees. The Commerce Committee does not have jurisdiction over either the port or the inland waterway user fees. They do have jurisdiction over Coast Guard user fees. The administration suggested those to the Commerce Committee this year, and asked us to adopt them. We did not—I did not support them. As far as any kind of cost recovery legislation for ports and waterways is concerned, that jurisdiction is in another committee in Congress.

Now with that, let's start with the first panel. I will say I have read all of your statements in detail. They will all be in the record in full. We will keep the record open for 3 weeks, if there are others who wish to put statements into the record. I would appreciate it if, instead of reading your statements verbatim, you would emphasize the main points you want to make, and then give me a chance to ask some questions.

Lloyd, are you ready?

STATEMENT OF LLOYD ANDERSON, EXECUTIVE DIRECTOR, PORT OF PORTLAND

Mr. ANDERSON. Senator, we appreciate again the chance to appear before you. Your staff has continued to give us quite a bit of help over the course of the last year, not only on waterway user charges, but a variety of other issues associated with the development of the river, and so the chance to show your interest again here is much appreciated.

As you have indicated, you have read the testimony, and I will not go through it in any detail at all, but simply touch on a couple or three points.

I think that we along with the other ports in the Columbia-Snake River system have been working on a comprehensive development plan for the Columbia River system. That plan has indicated a substantial growth in the movement of cargo, some two or three times what is now coming down the Columbia-Snake River system. I think it is evident from that forecast that there is a need on a continued basis for an integrated transportation system that takes into account rail, barge and ultimately perhaps slurry as a means of moving cargo on the system. We obviously have not looked at slurry very much, since it has not been an item that has been available for consideration, but it certainly should have an impact, I would suspect.

Clearly, the Bonneville Locks is an item of continued and deep concern. When you take a look at the growth of barge traffic, it is an obstacle, and will continue to be until it is widened.

In looking at our demands and our opportunities for growth, as I indicated, we are looking at two to three times the growth in the area. That growth will come obviously with some investment on the Federal part as far as deepening the channel at the mouth, which is clearly needed even with a balanced 40-foot channel, and along with that, a sizable shoreside investment on the part of the ports up and down the river.

I was visiting with the port people in Vancouver just before the meeting. They are expecting to put some $70 million in their facilities in the course of the next 5 years. Our forecast indicates some $270 million for us in the next 20. Most of that will be self-financed, coal facilities, grain facilities, and so on will pay their own way.

We estimate some $50 million will have to be paid for out of revenue that we generate, plus the revenue that we get out of each facility itself. So we will be looking to go to the voters very likely in the next year or so for new revenue.

I would come back, perhaps to the key point in the whole material that was submitted to you here, and that is the need for a look at an integrated transportation system that takes into account what you as the National Government has in the way of objectives. I think the whole waterway user charge issue and other kinds of issues associated with financing transportation if looked at within that context is going to come up with a different answer than the segment of tolls that have been proposed by Mr. Stockman and his recommendations to the Congress.

Our hope then is that in your efforts, and because of the work that you have done so far, that Federal approach will be continued to be used.

We have completed a plan that will cost some $160,000 that we think has brought the ports of the Columbia-Snake River system together in an effort to get quite a bit done, and we think that the continued financing of that here and other places in the country will be useful.

One final point with reference to, I would say what we would look at as one of our greatest prospects, and that is continued growth of the People's Republic of China, and the market opportunities which has continued the last several years and we would expect it to continue in the future. Its growth is so dramatic that we feel with good continued relations there, the future of the Columbia River system has an excellent future.

The CHAIRMAN. Before we go on to the next witness, let me make a statement about these user fees and the reason I feel so strongly. Never so firmly in the history of the country have we said that all forms of transportation had to pay their own way or they would not exist. We built this country out of basically federally subsidized transport, with the extraordinary grants that we gave to the railroads in the last century as they moved westward, as an incentive or a subsidy to get them to move.

And highways today; if we were to say that every highway in this country, let alone the State, had to pay its way, we would not have most of the smaller cities in Oregon, including many of the cities in western Oregon, tied together. They do not pay their own way. We never would have developed the airlines structure, freight and passenger traffic, had we not had Federal subsidies along the way to help, and the policy of this country has been from the start that we think an integrated transportation system is good for commerce, both domestic commerce and international commerce, and if that means that some portions of that transportation system do not pay their own way, the Federal Government is willing to help pay that way from the standpoint of overall national policy. I think that that is a good policy. I think that it has served this country well over the years, and to start to unravel that policy now and balkanize our transportation structure and say that each segment of it, be it rail or inland waterway or highway or air, each segment of it must pay its own way on every route would be a step backwards in terms of a strong economy in this country.

Floyd, what happened last night? We had our hearings in Astoria yesterday, and then they had a fire as I understand it.

Mr. SHELTON. That is correct, Senator.

The CHAIRMAN. What burned?

Mr. SHELTON. I am sure it has no relation to this.

The CHAIRMAN. I knew the hearings were hot, but what did happen?

Mr. SHELTON. Well, I was there until about 1:30 last night, apparently, and there was a fire that was started about 10:30 at Rainbow Creations, which is a small cottage industry located on port property there that was fabricating and selling on the international market a patented, some kind of a needlepoint thing that they sell

in gift shops, but it was completely gone by 12 last night, so it is no longer in existence.

The CHAIRMAN. I had a couple of questions that I wanted to ask Lloyd.

Lloyd, one, does the Port of Portland get adequate rail service, and two, what future need do you see for other or additional railroad development in the Portland plan?

Mr. ANDERSON. We have excellent rail service here by the Burlington, Union Pacific, and the Southern Pacific. If there is going to be any major development of bulk facilities at Astoria, there would be surely a need to improve that line between Astoria and here.

If you look at our service to the East and our service to the South, I would say that we are in excellent shape. I cannot speak to the condition of rail bed itself where we have heard some comments that maybe the rail bed needs improvement, but generally the service that we have gotten here from both railroads to the East and Southern Pacific to the South has been excellent.

On our property itself there is a need for the connection of rail service on the Rivergate side itself, connecting north and south Rivergate, that is an internal problem that I think we can take care of shortly.

The CHAIRMAN. You are prepared to go ahead with coal export now out of the Port of Portland?

Mr. ANDERSON. Yes; we are, and we have had specific and strong interest on the part of customers to the east of us.

The CHAIRMAN. Give me your estimate in terms of Portland's capacity for long-term coal export. Let me preface your answer by saying that I do not want to mislead you or anybody else here. I do not expect as much Federal money, after you adjust it for inflation, in the future as we have had in the past, or at least for the immediate future. This administration is cutting back, and is going to cut back in a variety of areas. So in answering the question, I do not want you to presume that we are going to have a 65-foot channel to Portland that will handle those immense coal carriers that I am told are going to be built for the next decade or for the next generation. Short of that, what is Portland's future in coal export?

Mr. ANDERSON. Well, first I think our view has been that the economics are going to determine where coal facilities will be located on the Columbia River. I think that any promotion of any contract or any dealing we have had on coal makes the assumption that we would have a 40-foot channel to Portland, and that is all. If there is long-range interest, and I think there is on the part nationally of setting a new standard for a 45-foot channel for major channels of the United States, fine. We would be interested in taking a look and working with people to see if that is feasible in this area. There is a need again, to get back to the mouth for a moment, we have got a 48-foot depth now. We need to go to 55 or more, and you have probably already heard testimony on that.

Our view is that given that no request for any Federal funds to deepen the channel to, say, 55 or 60 feet, but making the assumption that you have a 40-foot channel, we think that there is a market opportunity here to sell coal over the course of the next

decade and beyond that when you look at the kind of shipping channels on the other side of the ocean. We would see in the long run that the deep draft ship is going to be used and that the economics of it are on the side of the deep draft ship. Short term, that is the next 10 to 15 years, you can make a case that the 40-foot channel is adequate to handle at least many of the ships that are going to be serving the harbors on the other side of the ocean, in Japan, Taiwan, Korea, and therefore ships that can come in here and handle say, 55,000 tons can be competitive.

The CHAIRMAN. Are you saying that the reason the smaller vessels are competitive is because the foreign ports don't have the capacity to handle the deep draft ships?

Mr. ANDERSON. Not all of them but some of them, and obviously in cases where you can move large ships to deep draft ports, they are going to do that; you have got Los Angeles-Long Beach is moving coal now, and I would expect that would have some prospects of expanding, but we see the market opportunity on the Columbia River system for deep draft ports like Portland handling short term, long term Astoria and others that can handle larger ships as the channel is deepened in the mouth, and they can be handled there.

The CHAIRMAN. If we do not have the user fees on the ports, and if you continue to get adequate rail service, do you see any reason why Portland specifically and the other lower Columbia River ports cannot be competitive with Puget Sound or California?

Mr. ANDERSON. No; we have every expectation that the growth will take place. We expect to double the volume, as I said, as a conservative on the low side in the next 20 years, and probably in the range of 90 to 100 million tons compared to the 30 million tons we have got moving out of the river now by the year 2000. We have every reason to feel that we will be able to remain competitive. We need to carefully look at those things that we can do well. We are moving, let's say, 90,000 or 100,000 containers a year now, compared to Seattle's 650,000. Whether we are in the long run going to be a big container port I think would raise some question. I think we will have some containers, but it won't be of that scale, but there are other areas that we can do very well on. Automobiles are moving very well now, movement of bulk cargoes, there is a need for a special process to try to find a way that the inbound cargo balances against the outbound so that the rail problem associated with a balance of rail cars doesn't get too heavy, so you will see us working quite a bit on that. But I see the Columbia River as a very viable and competitive waterway system and rail system, integrated transportation system as it were, that can be competitive with any port up and down the coast.

The CHAIRMAN. Do you foresee the various Columbia River ports getting together and almost carving out for themselves in some type of a joint agreement what they think their specialties ought to be, or do you think it will continue to be roughly the competitive situation it is now?

Mr. ANDERSON. I think that there will be areas where we will try to identify areas where we can work together. We are working right now on one item specifically with Vancouver. We have worked out an intergovernmental agreement with St. Helens, and

we have one under negotiation and basically determined and agreed to at Astoria.

I see ourselves then over a long period of time working on joint agreements, particularly now on the Oregon side. It gets more complex when you begin looking at an interstate agreement, particularly if you have to have changes in State legislation on the Washington side, where you have the Puget Sound area resisting that kind of change. I think there is a willingness on the part of the ports to do it, and it looks like it is to our mutual advantage to do it.

The CHAIRMAN. Thank you.

[The statement follows:]

STATEMENT OF LLOYD ANDERSON, EXECUTIVE DIRECTOR, PORT OF PORTLAND

INTRODUCTION

I am Lloyd Anderson, Executive Dirctor of the Port of Portland. Let me start by saying I appreciate the opportunity to appear before your Committee on issues facing the Columbia/Snake river system. As you recall, last year this Committee met in Portland regarding the impacts and needs associated with the eruption of Mount St. Helens. Although we are not in a crisis mode today—we appreciate the opportunity this hearing gives us to discuss with you the challenges and opportunities facing continued growth and development of the Columbia/Snake as a major gateway to world markets.

COLUMBIA/SNAKE SYSTEM

The Columbia/Snake river system is continuing to develop as a major navigation system for both domestic and international trade. Trade is growing at a faster rate each year. There has been an 11 percent annual growth of cargo movement during the past ten years. At the same time, navigation constraints, competing demands on the use of the river system and national waterways are exerting pressure to restrain this growth.

Consideration of these issues is particularly important because the Columbia/Snake system is in its infancy, with the present system, including navigation as far as Lewiston, Clarkston and Wilma, completed just six years ago in 1975. The 40-foot channel is just five years old, completed in 1976.

COLUMBIA/SNAKE STUDY

Given these two pressures of growth and restraint, the ports on the Columbia/Snake river system have identified the need to work together to study the deep and shallow-draft portions of the Columbia and Snake rivers as a unified system. The viability of the inland ports is strongly linked to the deep-draft ports they feed. The reverse is true as well. The ports are using this unified, systemwide approach to determine:

The potential of the river system for navigation, trade, and economic development to the year 2000.

The impact of competing demands on the river system.

How to achieve the potential that is available.

With these objectives in mind, a Columbia/Snake study group was formed, sponsored by 34 ports ranging from Astoria and Ilwaco at the sea, to Lewiston, Idaho, and Wenatchee, Washington, in the interior.

Opportunities for growth

The preliminary forecasts of the study show the potential for a doubling or tripling of cargo handled on the river system by the year 2000.

Oceangoing cargo on the lower Columbia could increase from about 30 million tons today to as much as 100 million tons in 2000. The low estimate calls for a doubling to 60 million tons.

On the shallow-draft portion, cargo volume through Bonneville Lock was 8.9 million tons in 1980. The preliminary projections are for up to 24 million tons in 2000.

This growth comes from a combination of new commodities and growth of existing commodities. New commodities with potential include feed grain, coal, distillers' dry grains (byproduct of ethanol), and sand and gravel. Growth commodities include

wheat, alfalfa products, wood chips, fruits and vegetables, and containerized general cargo. This growth will occur on both the lower Columbia and on the shallow-draft inland waterway system.

Constraints to growth

The study has not been finalized but the preliminary drafts identify these major issues of concern that would affect the potential of the river.

Bonneville Lock.—This is a major physical constraint to growth on the Columbia/Snake. A comparison of dimensions graphically demonstrate the situation. Every other lock on the system has a dimension of 86 feet by 675 feet with the exception of Bonneville which measures 76 feet by 500 feet. If operating at peak efficiency all day, every day, the Corps of Engineers has determined moving capacity at Bonneville to be 13 million tons annually. Last year 8.9 million tons passed through the lock. If the annual 11 percent growth rate continues, maximum capacity will be reached soon. But even before that time, delays will become an increasing problem. Constraints on rail capacity make rail diversion an uncertain solution. (See Attachment I.)

Lock closures.—During 1980, the John Day Lock was closed 12 percent of the year for maintenance and repair. This is far more than for other locks on the system. The Corps should continue to seek ways of alleviating this situation.

Mouth of Columbia River (MCR).—Deepening of the mouth is now under study by the Corps to match the 40-foot river channel. Tidal and swell action necessitate a further deepening of the bar (which is now maintained at 48 feet) to accommodate ships capable of operating in the 40-foot channel. The Corps is now analyzing benefits data which takes into account current vessel delays and the potential enhancement of new commodities that could be achieved, i.e., Midwest feed grains and coal. There is a need to move foward with approvals, design and engineering.

Columbia River Channel.—The river channel has not been maintained to 40 feet Columbia River datum at all times. Corps of Engineer records indicate that the full 40-foot depth has been maintained for 13 percent of the time. That is during the monthly Corps surveys there was shoaling at least at one spot on the river. (See Attachment II). Fortunately, the river stage level has been such that this has not caused a serious problem for ships utilizing the river channel.

Authorization and Permitting Process.—This slow process affects major projects such as Bonneville Lock and MCR as well as all new smaller-scale development projects on the river system. An abbreviated or accelerated process should not reduce the environmental safeguards of the existing system, nor should it encourage action without adequate understanding of all potential impacts.

Export/Import Balance.—The Columbia/Snake system is the major export system on the West Coast. The majority of the projected growth for the system is also for exports. This presents a potential steamship and hardware positioning problem that must be addressed. Turbulent market conditions within the shipping industry could aggravate the situation in the short-range future.

Extension of Navigation.—Five port districts on the upper Columbia are promoting extension of navigation to Wenatchee, Washington. The Columbia/Snake system is still in its infancy and this would help complete the system and bring the economic development potential that navigation brings further into the interior of the Pacific Northwest.

Water Policies.—The Columbia/Snake provides the Northwest with a multi-purpose natural resource—water. However, regional and national water policies are being developed today without much consideration of navigation. One objective of the Columbia/Snake study is to provide a framework for including navigation potential in regional and national water policies.

User Charges.—Although not a topic of discussion for today's hearing, it is nevertheless the most critical issue facing the river system.

One point emerging during congressional hearings on the user charge issue appropriate to discuss is the need for a national transportation policy. Each project and study should be considered in the context of a national system; the relationship of transportation modes aside from the waterway system has to be taken into account as well.

The situation at Bonneville Locks, the depth of the bar at the mouth of the Columbia River, the availability of adequate rail or highways—all must be considered in the context of the common denominator: moving the nation's goods to market in the fastest, most efficient manner possible.

Need to finish study

The cargo forecasts and issue development portions of the Columbia/Snake study represent Phases I and II of the project. These projects thus far have been funded by the Pacific Northwest Regional Commission. As federal money sources for regional

projects are drying up, we would urge Congress to consider the importance of assisting with Phase III of the project which would involve formulation of an action plan and timetable for resolution of the problems you are reviewing at this hearing. Other studies have been completed identifying cargo handling and port facilities requirements. However, none have addressed the type of issues that you are reviewing today. The Columbia/Snake study is developing solutions to port development problems, such as navigation constraints, trade barriers and trade development.

This study could serve as a useful model for other regions. Estimated cost for the completion of the project is approximately $160,000.

Aside from the issues discussed in the Columbia River Study, but no less important are several which merit review:

OREGON CUSTOMS DISTRICT STATUS

Recent Congressional action relating to customs service raises a number of concerns about the future of the Oregon District Customs Office. International trade trends show Portland to be the fastest growing district in the region and indeed one of the most important in the nation. It is also important to recognize that the Puget Sound and Columbia River ports have a long history of competition for foreign trade. The loss of the Oregon Custom District could result in the potential of competitive disadvantage by not having a district on the river. Also, the geographic size of a merged district, if created, would harm the balance of competition and service in the Northwest.

We believe a viable alternative for reorganization—one that will help achieve needed savings while maintaining a high level of service from the Oregon District Office—is the extension of the Oregon Customs District jurisdiction and service to Eastern Washington, Idaho, and Montana. These areas operate now as a tributary and part of the Columbia/Snake river system and are integral to the trade patterns and activity of the Oregon district.

We would also note that we are deeply concerned by the vacancies in managerial positions in the Oregon District Office and the planned reduction in force for the Patrol Division. While we recognize a hiring freeze has been imposed by the Administration, we are also cognizant that exceptions to this regulation are made. Apparently, no effort has been made by the Service to seek such an exemption in this case.

In the context of the consolidation issue, it would be easy to make the argument that the Portland office has the most vacancies and would, therefore, be least disrupted if combined with Seattle. Please know, however, that this is not an acceptable argument. The emerging trands of the Columbia/Snake system override it.

DEREGULATION

Deregulation could be a positive step in creating true market place conditions, enhancing our competitive advantages for functions we are most suited to accomplish. As mentioned earlier, it appears that Portland's strengths in the years to come will be closely aligned with shipments of bulks: The Port is based at the foot of the second largest inland waterway system in the United States. We have a large amount of land available to accommodate land intensive operations. We expect to benefit, as a result, from restructuring of intermodal rates that appears to be taking place.

The Port is inextricably tied to the hinterlands of the Columbia/Snake basin and we feel that this is an area that should be watched. Lower population areas or lower volume carriers will experience a change in the level of service assurances that regulation had afforded them in the past.

In the short term, the rate fluctuations for all carriers have caused an added dimension to negotiations with international firms. In many cases, negotiations are spread over a period of time and the fluctuations have necessitated some backtracking. But we feel that change will always result in adjustments and concerns, which at this point are for the most part speculative; we are nonetheless optimistic.

BURLINGTON NORTHERN RAILROAD BRIDGE

This 70-year-old bridge spanning the Willamette River, north of the Port of Portland's ship repair yard has served its purpose in the past but now it is outdated and acts as an impediment to marine traffic in the Portland harbor. Maritime interests consider the current bridge design as an unreasonable obstruction to navigation.

According to the recently completed Marine Terminals Master Plan, the Port expects continued growth of general cargo moving through Terminal 1 and 2 which are upriver from the bridge.

1980 also saw a sizable increase in the number of ship calls at the Portland Ship Repair Yard with a beam exceeding 100 feet. These two factors would indicate that the bridge will become an every increasing navigational obstacle. We also expect continued traffic and growth at the three private terminals located on the Willamette (Dreyfus, Bunge, Martin Marietta).

The combined economic impact to the community of these two marine endeavors—general cargo and ship repair—is sizable.

The U.S. Coast Guard reviewed the Burlington Northern bridge situation, held hearings to gather input from the public and maritime interests. At the present time, an "Order to Alter" is making its way through the Coast Guard chain of command. Final action will involve aproval of the Coast Guard Commandant at which point a funding request will be sent to Congress.

FEDERAL MARITIME COMMISSION

The structure of t' Federal Maritime Commission is such that they are vested with the responsibility of policing entities that sometimes have differing objectives. As the Commerce Committee considers matters that fall under the auspices of the FMC they should keep in mind the importance of balance between the interests of ports, shippers and ocean carriers.

These comments should not be construed as a criticism of past action but rather a caution for the future as we enter a period of increasing turbulence in the world market.

All issues facing us, however, are not problems. We have a number of exciting positive efforts and activities before us.

MARINE TERMINALS MASTER PLAN

No discussion of development on the Columbia/Snake would be complete without a mention of the Port of Portland's plans in the next decades.

The Port of Portland Commission has received the recommendations of a citizen's task force report which sets guidelines for Port development through the year 2000. The initial phase of the Marine Terminals Master Plan was completed in December 1979. According to the findings, cargo volumes moving through the Port of Portland will triple by the end of the century. In 1979, cargo volumes were 6.5 million tons. By the year 2000, volume is expected to be as high as 22.8 million—averaging a yearly growth rate of 6.2 percent.

One of the key components of the Master Plan has been the development of a Marine Cargo Mission statement which identifies general cargo as the highest priority for the Port in the years to come. We have determined that this is the type of cargo that most effects producers and consumers in Portland and throughout the Northwest; being directly responsible for a large number of jobs.

No major shifts in cargo are anticipated. The Port will continue to handle a wide variety of cargo types with significant growth rates anticipated in the movement of containers, grain, steel, and autos. Moderate growth is projected for general cargo which includes certain types of containerized goods, breakbulk and neobulks such as steel, lumber, pulp, and plywood.

New commodities that are expected to be handled through the Port of Portland include coal and midwest feed grains.

The thirty-member citizens task force analyzed the need for new facilities based on the cargo forecasts and concluded that 18 new berths will be needed to accommodate the new growth—an average of one new berth a year through the year 2000. At the present time, our staff is analyzing the potential cost and alternatives for renovating Terminals 1, 2, and 4. We expect this research to be completed before the end of the year. The cost for providing all the facilities needed to efficiently handle the forecast volume is estimated to $270 million.

COAL EXPORT

The foreign demand for U.S. steam coal has made the water transportation system the focal point for congressional scrutiny of the entire transportation system as there is a rush to respond to market demands. The Port of Portland is in the process of applying for permits that will make it possible to site a 12-million-ton capacity shipping facility. The permit procedures are going smoothly.

If the government's involvement in the permit process is scrutinized with the possibility of change, it is important to make sure there is no compromise of standards that have been established. The safeguards of the system as they relate to

environmental concerns, integration of all transportation modes, and continued viability of the regions served by those systems should be addressed.

There is a need for more than one coal facility in the Columbia/Snake system. The variance ports, transportation modes and Congress should think in cooperative marketing terms rather than face each otehr in counterproductive discussion, and I feel that the Columbia River ports have made that effort.

TRADE WITH PEOPLE'S REPUBLIC OF CHINA (PRC)

The prospects for continued and increasing trade with China are especially exciting. All indications are that the road is being paved for increasing market activities between our country and theirs. The recently signed Sino-U.S. Maritime Agreement cleared a number of hurdles for further growth by COSCO (China Ocean Shipping Company) and American-flag carriers providing service to China.

When the first loaded Chinese ship to call in the U.S. arrived at the Port of Portland in February 1980, it capped off two years of effort that we are confident will continue to produce results in the years to come. At the present time we are receiving monthly calls from China. A lot of the old mystique of trade with the Orient exists because the cargoes we receive are breakbulk, but what we see today is only the beginning. We expect China/COSCO's U.S. service to be upgraded technologically as her fleet grows. They have recently purchased eight new ro-ro container vessels from Japanese builders and have several full container vessels on order in Germany. They have also contracted for four container manufacturing plants in the last two years. Consequently the container business between the West Coast and China will certainly see more development.

SUMMARY

It is important to recognize that these economic development need and these regional and national policy issues are not unique to the Columbia/Snake system. They face all of the communities in the Pacific Northwest. It will be extremely important that all of us in the Pacific Northwest work together to help attract economic development to our region and to help solve regional problems.

TABLE P–4.—COLUMBIA RIVER SEGMENT 2 LOCK CLOSURES 1978–80

	Number of closures		Hours of closure	
	Scheduled	Unscheduled [1]	Scheduled	Unscheduled
1978	1	4	80.5	10
1979	1	2	242.0	58.75
1980	2	2	328.92	6.04
THE DALLES LOCK				
1978	1	0	127.5	0
1979	[2] 17	1	424.9	19.2
1980	[3] 24	0	627.2	9
JOHN DAY LOCK				
1978	1	0	127.0	0
1979	[4] 12	0	410.5	0
1980	[5] 88	3	1012.8	73.1

[1] Outages of 2 hours or more where 30-day notice not possible.
[2] 16 closures for No. 3 gate repair.
[3] 24 closures for No. 3 gate repair.
[4] 10 closures to replace anchor cables.
[5] 87 closures for drill crew drilling anchor holes for 1981 anchor placement.

Source: Draft Columbia/Snake River Study, 1981, U.S. Army Corps of Engineers.

ATTACHMENT II

TABLE 1.—PERCENT OF TIME THAT VARIOUS DEPTHS WERE AVAILABLE SUMMARIZED FOR ALL BARS
PERIOD—1978 and 1979

River Reach	36 and less	37	38	39	40
Mile 3 to Tongue Point (Mile 18)			6	16	78
Tongue Point to Vancouver (Mile 105)	11	34	22	20	12

Note.—Based on monthly records of the Corps of Engineers which may not indicate channel deepening at the time it takes place.
Source: Ogden Beeman & Associates.

The CHAIRMAN. Floyd?

STATEMENT OF FLOYD SHELTON, EXECUTIVE DIRECTOR, PORT OF ASTORIA

Mr. SHELTON. Thank you, Senator. It is an opportunity to be able to address to you today some of the developments, strengths, and opportunities of the Port of Astoria and the Lower Columbia River that fall into a couple of basic issues. One of them is the rail issue, that is the rail service to the Astoria area and the other one is the development of water on the bar.

I have to echo what Lloyd has said with regard to waterway user fees and problems, and we feel that the Columbia system can be a very viable one with the competitors to the north and south. I certainly believe there is an opportunity now for us to work closely together, and as Lloyd said, we are indeed doing that. I note that the Ports of Seattle and Tacoma are now, at least in the press, discussing the possibility of forming a port jointly up there. That of course could provide a substantial competition to the Columbia system, and so I do feel very strongly that those opportunities are ones that we should continue to pursue in terms of living together to provide the Columbia system as a really viable competitive system to the other ones to the north and south.

Turning to Astoria, though, I think that there is a long history of nondevelopment over there, and the railroad has not been upgraded for many, many years and the ability to handle bulk in there is simply not existent on a competitive basis. The unit trains can not move into that area at competitive rates and therefore we simply can not move them.

The water depth over there on the bar is another constraint to the development of that port, since there is no real opportunity for other types of cargo commodities to move through that port. We are currently 100 percent dependent on log exports, that is the primary commodity that is moving now. Prior to that there was a considerable amount of grain movement through the port but that has dropped off about 3 years ago, primarily based on two functions: First, the elevator had been depreciated over the years and it was obsolete and really was not on a competitive basis, and in addition to that the railways into that area were such that it was no longer economic to use even its depreciated state.

We feel that the development of the bar, the deeper bar, that is beyond the Columbia River study that is now in existence, is a very important opportunity.

The CHAIRMAN. By study, you mean the 50-, 55-, and 60-foot alternatives?

Mr. SHELTON. That is correct, Senator. I think 60 feet is a very viable kind of opportunity. I think that that can be provided. We have met with the corps a great deal on that subject, and I think 60 to 62 feet, somewhere in that category, is something that would provide Oregon with a deepwater facility at the mouth of the Columbia River.

I have to mention also the environmental problems, I know you heard a great deal of testimony yesterday on environmental issues, and they are very real to coastal ports trying to develop, and we will work within a very constraining environmental conservation program for many years now. I listened very carefully to the many remarks that we are now close to completion of all of our work, that we are on the verge of a breakthrough, and that soon we will be able to move ahead with the development process in the coastal area. I am not sure that I share all that enthusiasm.

Certainly we have made a great deal of progress in our environmental issues on the coast and in terms of controlling development in an appropriate manner and that allows us to develop, and at the same time protects the estuary. That is a very important type of step.

The problem as I see it is that we now find ourselves in kind of a catch-22 situation that although we have designated areas that we can develop what we now have to do is to justify the use of those areas before we are able to obtain a permit. And so when you are talking with a business client about the potential for development in the area, the first thing they want to know is if we have a permit, and we say, "No," and the first thing the environmental people want to know when we ask for the permit is, "Do you have a client?", and when we say, "No," you do not get a permit, so I think that we do have a way to go with regards to environmental issues.

The rail one is one that I think is of some concern to this committee and one that we certainly feel is the one that we have been addressing in a number of different ways over the last few years, and one that has now great opportunity for improvement.

I have to say that in my opinion there has been significant change in the Burlington Northern leadership, and the corporate policy of the Burlington Northern, and we are now somewhat enthusiastic about the new approach that they are taking. We have worked together on a number of different projects and we will continue to work together, but I do believe that we have a way to go yet. The track is not upgraded today; we cannot move bulk over that facility, and indeed that will be necessary if we are going to expand and develop Astoria at all.

There is a great opportunity; we have a lot of land, I think, in Astoria, that can handle bulk. We are a small community, but we have a lot of waterfront land. The port dock facility could handle up to 12½ million tons of coal or other bulk per year.

The CHAIRMAN. These are your existing facilities now; you have to build the coal facility, but you have the existing docks?

Mr. SHELTON. That is correct. The Skipanon site, which is also a very desirable site, there is an economic problem in developing that, but I think environmentally it could be done very rapidly. It is capable of handling 15 million tons a year. Of course, the Tongue

Point site which is owned by the State of Oregon is coming on line and has a capacity of upward of 10 million tons, so there is a tremendous amount of land capacity in the lower Columbia River to handle bulk commodities, but they cannot be handled if we do not have appropriate rail service there, and if we are not able to take advantage of the bar with deeper ships. There is about a $5 to $7 spread per ton on ocean transportation costs on the large 100,000 or larger ships over the smaller shallow draft ships, and that gives you a great deal of latitude to work with if you are looking at the cost recovery program which the Port of Astoria supports with regard to a deeper waterway, that is, over 13.5 meters. Indeed, in particular, Senate bill 1856, I believe it is, provides for the 50 joint carry on, then indeed there is a real opportunity for the private sector to become involved directly with Federal Government and to provide for that group of water, that is, the incremental water over what would normally be provided by the 50- to 55-foot depth really necessary to fully utilize the 40-foot channel today, and with that kind of authority granted to us by the Congress, we feel from the people that we have met with, with whom we have traveled in the Pacific Rim nations, as well as here in the United States, that there is reason to believe that that bar could be deepened to handle the larger ships, so we feel that that is a very important piece of legislation that could be provided for us in the future.

In summary, I think that we are on the verge of developing the Port of Astoria. It would provide Oregon with the one and only, I believe, deepwater port. I think if in fact we are not able to make some progress on the movement of bulk, which is really a great opportunity that has gone down the line for the Port of Astoria, I do not—it is hard for me to forecast a very rosy picture in terms of further port development in the Lower Columbia River.

There are some other opportunities that we are working on now, but really that is the major purpose of our attention today, and one that we will continue to be working on in the foreseeable future.

The CHAIRMAN. If you were to get the major coal export and maybe grain export facilities in Astoria, absent the employment of building them, what would it do for Astoria's employment after they are in operation?

Mr. SHELTON. I think the employment itself would be, the impact after the construction would be fairly small, in the sense that it would be only about 35 people. It is highly capital intensive and we would not be looking at a major contribution of jobs to the local economy, but what it really does is provide the infrastructure that is to clear the way for the upgrading of the rail line over there and allowing other bulk facilities, such as the grain facilities to add additional jobs. It provides a competitive rail service in there and carries the load of providing water into there. That event could be the catalyst to build the port for future development. But the immediate impact of employment is not so significant, that is very true, but the long-term impact in terms of the infrastructure construction would be very significant for the port.

The CHAIRMAN. What are your alternatives if the coal facility or the grain facility does not come to pass, if the railroad is not

upgraded, or if for whatever reason, Astoria has got to develop on some other basis?

Mr. SHELTON. I think one of the major opportunities over there would be the industrial base over there, they are trying to develop the industrial base. Let me say the reason that I believe that. I do not believe it would necessarily be cargo area. Lloyd addressed the issue of the containers in Portland. They are in competition with Seattle, and there is some migration, I believe, going on to Seattle right now, and it is very difficult for me to see us in a situation with Longview in the container business on the river, with the Port of Portland in a very serious competitive situation in the container business that we indeed could make any significant movement in the container area. So, if you move containers away, which is one of the major features in the marine area today, and leave bulk out, there is not a lot left for cargo movement there. And logs in the future, I think, will continue to be diminished. There is considerable movement on the export of logs, to ban the export of logs, and I think that is going to continue.

I was in Japan just 2 months ago, met with all their trading companies there that are in fact moving logs through our port now. We find that we are down so far this year about 45 percent on our ships, compared to this same time last year, and it has been reported to us by every single one that we can look for more of the same, and indeed probably a further reduction on them, so the logs are definitely dropping off, and dropping off very rapidly.

I believe that the area of Astoria will really have to turn to other than major port development.

[The following information was subsequently received for the record:]

In response to your question as to what would happen without development of the railroad from Portland to Astoria, I would like to provide some additional information.

The Port of Astoria's survival is 100 percent dependent on log exports. Log exports in 1981 are down 45 percent from last year. It is predicted this trend will continue due to decreasing demand.

Based on a recent analysis, a total log export ban would reduce annual port operating revenues from $2.5 million to $300,000. This clearly demonstrates the need for diversification of our revenue base. Without the railroad upgrading, the likelihood of significant port development is slim.

The CHAIRMAN. Thank you.

[The statement follows:]

STATEMENT OF FLOYD L. SHELTON

Chairman Packwood, members of the Committee, I am pleased to have this opportunity to comment on development opportunities at the Port of Astoria. The export of coal is currently the focus of many of these opportunities. Coal can be the catalyst for the development of the Port of Astoria.

To accomplish this we must take advantage of world market conditions. We must develop new financing capability and we must have predictability in our permitting process. If we accomplish these objectives, Oregon could have a major deep water port at the mouth of the Columbia River.

ENVIRONMENTAL CONSTRAINTS

With regard to the permitting process, we recognize that proper use of our coastal areas is in the national interest. Conservation and protection of our estuarine resources are important to all of the United States. However, we feel that proper use of coastal areas should include equal consideration for economic activities that, of necessity, have to be conducted in our coastal area. Too often, overzealous federal

resource agencies can and do inhibit the ability of coastal ports to develop. This often comes from the lack of predictability. That is, so much uncertainty is introduced into the permit process that reasonable business risks cannot be taken.

Endless review processes, litigation used as a delaying tool, permit denial based on vague and unclear issues, and individual agency veto power are such that the development system ceases to function. The problem of a dynamic economic system, trying to function within a static resource review system remains unresolved.

NAVIGATIONAL IMPROVEMENTS

The Administration's goal of expediting Port development cannot be realized unless the present waterway permitting process is expedited. New legislation has been introduced that will have a direct impact on this problem, particularly, the many versions of permit "fast-tracking." Expedited permit processing coupled with cost recovery programs will allow for development of new waterway projects.

In that regard, cost recovery is not a new idea. Indeed it makes sound economic sense that those who are the primary beneficiaries of a waterway project make some significant contributions toward the funding of that project. However, without an expedited permit review and authorization process by the federal government, the cost recovery program cannot be effective.

The Port of Astoria has the opportunity for significantly deeper water. This deeper water would contribute materially to the reduction of ocean freight costs from Astoria to the Pacific Rim. Coal moving from Astoria to Japan could be reduced from $3–$5 per metric ton by the use of 100,000 dead-weight-ton vessels rather than Panamax-sized vessels. Preliminary estimates indicate that the cost of this deeper water may be no more than $.50/ton based on a 10-million ton annual movement. This represents a significant spread between the shipping charge reductions and expenditures necessary to achieve those savings.

Consequently, a real potential exists for a deep-draft Columbia River port to accommodate vessels carrying coal and other bulk commodities at world competitive prices. However, necessary deepening can only occur if Congress will authorize such a program in an expedient manner, consistent with a participating financing program.

Specifically, the Port of Astoria recommends that the Senate Commerce Committee support legislation that will significantly accelerate the process of authorizing harbor-deepening projects under participatory financing arrangements. Timely completion of a harbor-deepening project at the mouth of the Columbia will enhance the entire Columbia-Snake River system, allowing it to more effectively compete with ports to the north and south.

INLAND TRANSPORTATION

The second part of the Port development equation at Astoria is inland transportation, specifically, railroad service. The importance of the railroad cannot be overstated. The upgrading of rail service to Astoria is an immediate priority of the Port. Bulk commodity movement is important to the future of Astoria. The existing trackage to Astoria is not substantial enough to carry bulk commodities in unit trains. Burlington Northern has advised it will cost $30–$50 million dollars to upgrade the track to operate these heavier trains.

Powder River Basin coal will be exported from the Pacific Northwest at a time and location primarily determined by the Burlington Northern. That is, the BN is the only rail carrier to serve all primary deep-water sites under consideration. In addition, the Burlington Northern is the only carrier serving all 23 originating coal shipment points in Montana, and the majority of the '51 originating points in Wyoming. Since rail transportation accounts for 60–70 percent of the total delivered price to a northwest port, the ability of BN to set negotiated contract rates, dependent on internal operation requirements, is an important and determinate consideration.

It seems clear that BN recognizes its new opportunities and responsibilities to provide competitive rail service to Northwest ports. Indeed, under new corporate leadership, Burlington Northern is moving to implement programs of improved rail service.

This new direction is to be commended. We find a new enthusiam at the corporate level that did not exist before. It is this new corporate direction that provides us with some belief that Astoria will become an important port area.

The Burlington Northern has made it clear that Astoria, because of the continuous water level route and proximity to the river mouth, has, among all of the northwest deepwater port locations, one of the most favorable economic situations for major bulk terminal development. The BN has indicated that if long-term coal

contracts can be initiated, they will provide: An expeditious upgrading of the rail line from Portland to Astoria; Long-term negotiated transportation contracts with predictable escalators; Competitive service for other bulk commodity movements to Astoria. This is an important commitment from Burlington Northern.

We are currently working closely with the Railroad to develop these contracts. We have some reason to believe that we will be successful, and the Port is committed to this ongoing effort.

The future of the Port of Astoria is dependent on two important transportation factors; one, the improvement of the inland transportation system; and two, the improvement of the harbor entrance. With the new spirit of cooperation from Burlington Northern, we feel we are making progress on the rail service issue. With the help of Congress, we have the opportunity to quickly solve the harbor deepening issue. We think we have a positive development direction in place.

We are hopeful that these new programs will lead to resolution of Astoria's development problems. With your help we believe we can solve these transportation impediments and thus enhance the entire Columbia River system as a transportation network competing effectively with port regions to the north and south. If not, we hope the Committee will allow us a future opportunity to further address this issue.

The CHAIRMAN. Mr. Bressler?

STATEMENT OF RICHARD BRESSLER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, BURLINGTON NORTHERN, INC., SEATTLE, WASH.

Mr. BRESSLER. Senator, we are pleased to be here this morning to talk about the need for port facilities, and particularly bulk loading coal facilities in the Northwest.

We have felt for some time that it is essential for this country, and particularly this region to have such a facility. I am sure you have seen the Roberts Bank facility just south of Vancouver; there is nothing like that in this area. We have been spending our own money and will continue to on preliminary engineering and on environmental studies permitting kinds of work because of the time it takes to develop such a facility. We have worked closely with both of the gentlemen here representing the Port of Portland and the Port of Astoria.

So far as the Port of Astoria is concerned, we see a need for deepwater facilities, and I guess I would also echo what Lloyd said about the Port of Portland, we think there is also a role for smaller ships as well as larger ships in that particular trade.

So far as the rail facilities are concerned, I think you have heard that the facilities here at Portland are such that our unit trains move here right now. We have said, and I have told the Governor of Oregon and I have told Floyd Shelton that we would move unit trains to Astoria on the basis that a customer was obtained and that we had opportunities to see the development of a full port. The Burlington Northern will invest its own money in the upgrading of that rail line. It is the shortest time element in such a project, in terms of the time to build the coal facility and the building of appropriate power plants for customers and so forth, we can upgrade the rail line in a much shorter time than that, and we will do so.

The CHAIRMAN. Let me interrupt you there to make sure that I have fully understood what you said. The Burlington Northern is willing to pay the cost of upgrading the line if the other factors are there to justify the cost?

Mr. BRESSLER. We want to see that the business is there; yes.

The CHAIRMAN. I understand that, but are you willing to pay the cost?

Mr. BRESSLER. Yes.

The CHAIRMAN. This would be an up-front payment?

Mr. BRESSLER. Absolutely.

The CHAIRMAN. And how much do you estimate it would cost to upgrade the track? Let's take them separately: To Tongue Point; to the Port of Astoria; and to the Skipanon site, including the Youngs Bay Bridge. How much do you estimate to upgrade them to the extent necessary for major coal export?

Mr. BRESSLER. Well, it becomes a moving target, depending upon when the investment is made, but we estimate to go to Astoria probably is in the $30 to $40 million category.

So far as the Skipanon site, a substantial investment would have to be made in that bridge, and I am not familiar with what that bridge is, but it is quite substantial. Just off the top of my head, maybe it is $10 million just to get across that bridge.

The CHAIRMAN. Do you see any serious impact on St. Helens, Scappose, other towns between here and Astoria, if you were to upgrade the line to Astoria and have a fair number of unit trains moving through their towns daily?

Mr. BRESSLER. Well, there is impact, there is no question about it. The rail line moves on grade through most of those towns. Probably Astoria itself would have the most substantial impact. Obviously, if the port is developed at Tongue Point, it is not the case. We have been working with the port, though, on the rehabilitation of the grain terminal, and we would expect to move unit grain trains down to that grain terminal, which is in the middle of Astoria, as you know. No question about it, there would tend to be some inconvenience as those trains moved through.

The CHAIRMAN. Go ahead. I interrupted, you were in the midst of your presentation.

Mr. BRESSLER. That basically is our position. We think we have been supportive, we want to continue to be supportive. We think that that business will happen. We do need the port facilities. We are perfectly willing to invest in whatever is required in the way of rail facilities. It is good business for us. Grain exports from this country, as you know, have grown enormously in recent years. We are moving grain in the same kind of unit trains that coal moves in, and we think it is good for us, it is good for this region, it is good for our country.

The CHAIRMAN. Does Burlington Northern own much coal?

Mr. BRESSLER. Yes, we do. It is not presently being developed because—for a number of reasons. Most of our coal is in Montana; and the economics of coal move most of the coal currently being produced from Wyoming, where it is cheaper to mine the coal. A lot of the Burlington Northern coal still remains in a checkerboard fashion in which the land grant was made, so it is not really in a mineable situation. There is some being mined, but relatively little.

The CHAIRMAN. Are you making money on the coal that you are hauling now?

Mr. BRESSLER. Yes. It is a marginal proposition for us, yet, but we are optimistic that that is going to improve. We are currently moving, I think this year we estimate 115 million tons of coal out

of the Powder River Basin. We have invested over $1 billion in that particular coal haul and I would say it is a marginal proposition at this point in time.

The CHAIRMAN. Are you going to be entering into any long-term contracts with producers and shippers?

Mr. BRESSLER. We certainly hope so. We have proposals out. We have not entered into any contracts at this point. In our various combination visits in the Orient with the Port of Astoria people, we have offered long term contracts and certainly in the case of the Koreans, which seem to be the most viable potential customer right now.

The CHAIRMAN. Could you make money on short hauling coal from Portland to Astoria?

Mr. BRESSLER. You can make money or lose money on almost anything, depending on what the rate is and what your costs are.

The CHAIRMAN. Well, you could make money if——

Mr. BRESSLER. I think so.

The CHAIRMAN [continuing]. You have the only line, so that if coal were going to move to Astoria, it would move roughly at the rate you determine to haul it?

Mr. BRESSLER. Well, if we make the investment, obviously we are going to expect a return on that, and so we would certainly hope that we would make some money on it. Chances are, in the early years of that type of thing, that it is not a particularly profitable business because the volume will not be there in the early years. I think all of our estimates on what would have to be done in terms of upgrading of the line are based on 10 million tons perhaps a year. My guess is it would be several years before the volume would be up to that.

The CHAIRMAN. We have heard a number of ports, and especially Astoria say that their future is really tied to you and yet your testimony indicates that the economics of the port is going to determine where you go, that you will not be the major factor in determining the economics, you will simply follow the economics. Did I phrase it right?

Mr. BRESSLER. Well, it is a closely allied thing. I do not think that—a lot of people term it the old chicken and the egg problem, but I think we recognize the need to be allied closely with the port and the potential development down there. If indeed the bar is deepened and Astoria becomes a deepwater port, we see every reason that that should be a very competitive situation, so far as bulk handling of bulk coal and grain, and we would certainly make that investment if we saw those things transpire. I think that as Floyd knows in our visits with the key potential Korean customers, we see the redevelopment, if you will, of that great terminal down there offers the prospects for some business, and we would do what was necessary to help facilitate that, and I think in hand with the port as we try to develop what we see as good business for us.

The CHAIRMAN. The charge is frequently made, however, that the determination will be principally yours as to whether coal goes out of Puget Sound or Kalama or Astoria or Portland. In your company's view, whatever internal memorandums or assessments that you have, how do you compare competitively, the Port of

Astoria and Portland versus Puget Sound or versus Kalama or southern California ports?

Mr. BRESSLER. Well, we see it this way, one of the other ports that we have worked with is the Port of Bellingham, which is quite a ways up on Puget Sound. I think as I see it that port has the advantage of having deepwater without the necessity and the cost of dredging. On the other hand, Bellingham is a lot further away from the coalfields than is the Port of Astoria, and there is a mountain range that intervenes there, so it is much more expensive for us to move coal to the port of Bellingham, if that should be developed as a bulk handling port.

The CHAIRMAN. And if you have brought the coal as far as Portland, the cost of going to Astoria, assuming an adequate rail line, is significantly cheaper than going to Bellingham?

Mr. BRESSLER. Well, whether it is significant, but it certainly should be cheaper.

The CHAIRMAN. Enough to be a factor?

Mr. BRESSLER. Yes. We see that each of these ports has some particular advantage, factor or otherwise. We see the need ultimately for several such ports. If Astoria should have deepwater down there, I guess in my estimation it would be a significant competitive advantage.

The CHAIRMAN. What about different Columbia River ports, what do you see as their relative advantage, absent Astoria?

Mr. BRESSLER. Well, absent Astoria, I think that the port of Kalama has been quite interested in developing a facility there. Now they are halfway between Portland and the mouth of the river. The rail lines, both ours and the Union Pacific run right adjacent to the site of the ports there, so obviously the investment required for rail facilities would be relatively minimal. That port, though, at the same time, has no existing infrastructure of any substantial amount; they would have to make new investments. It would suffer in the same way, I suppose as the shallow draft ships, as would the Port of Portland.

The CHAIRMAN. In your statement you expressed very strong objection to coal slurry pipelines having the right of eminent domain.

Mr. BRESSLER. Yes.

The CHAIRMAN. In most of the States that you operate in, you have the right of eminent domain?

Mr. BRESSLER. As granted by the State, not the Federal Government.

I have two feelings about that, Senator, and I think that slurry pipelines—I have no objection to slurry pipelines per se, I think if the economics are right, we might even invest in a slurry pipeline. I think there are a couple of considerations. One, obviously, is the water consideration in the part of the country where much of that coal originates. I am not an expert in that, but I do know that that is a significant problem, and particularly in places like Wyoming. The part that we would, and have objected to, is the—what I would call special privilege that the pipelines are looking for and wanting to operate as a private carrier as opposed to a common carrier. That is, we have to take, whoever offers us coal, we haul. A private carrier would not, they could be very selective in that. I have

advocated the same kind of legislation as perhaps permitted the Alaska pipeline; anyone who owns oil on the North Slope of Alaska can tender that to that pipeline and the pipeline must ship it. A private carrier would not have to do that.

The CHAIRMAN. So your objection is not so much to their having eminent domain as their obligation to carry?

Mr. BRESSLER. To carry, and the fact that we do not see any need for Federal eminent domain. The States have granted that to rail lines and to pipelines. We do not see that there is any need for a Federal eminent domain law.

The CHAIRMAN. Would you grant the coal slurry pipelines the same Federal eminent domain that is granted by the Federal Government to natural gas pipelines?

Mr. BRESSLER. I am not familiar with the difference between what natural gaslines have in the way of Federal eminent domain.

The CHAIRMAN. They have a Federal eminent domain power of the right to condemn.

Mr. BRESSLER. Well, our position is that I have nothing against slurry pipelines where economics are right and they do not have to exist on the basis of special privileges.

The CHAIRMAN. And so I take it then it would be the Burlington Northern's position that they would support the efforts of coal slurry pipelines to be granted State eminent domain powers?

Mr. BRESSLER. And I think they have in many States.

The CHAIRMAN. Yes, but if Burlington Northern would support that, that would put them on an equal basis?

Mr. BRESSLER. An equal basis, yes.

The CHAIRMAN. Your sole objection is to their having Federal eminent domain powers because they are not a common carrier, not because of the eminent domain per se, but because they are not a common carrier?

Mr. BRESSLER. Well, I think they should be a common carrier, and I see no need for Federal eminent domain legislation when the States provide that access.

The CHAIRMAN. Eminent domain is eminent domain; it is just the power to condemn, whether you get it from the States and condemn land in the States, or whether you get it from the Federal Government and condemn land in the State——

Mr. BRESSLER. As far as I know, the slurry pipeline that is perhaps the closest to fruition, the ETSI Line has every permit that they require so far as crossings and eminent domain in the States in which they want to operate.

The CHAIRMAN. Thank you.

[The statement follows:]

STATEMENT OF RICHARD M. BRESSLER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, BURLINGTON NORTHERN, INC.

My name is Richard M. Bressler. I am President and Chief Executive Officer of Burlington Northern, Inc. I appreciate the opportunity to testify before this hearing concerning the further development of our ports and ways to accommodate growth in the commerce which moves through them.

Growth is a subject we know a lot about at Burlington Northern. For example, we have played an important role in the doubling of grain exports through Pacific Northwest ports which has occurred since 1977. Our unit grain train operations have greatly speeded up the movement of grain, thus increasing our capacity. The economies resulting from the this type of operation have also allowed us to establish substantially lower freight rates. We expect that grain export traffic will continue

to grow at a rapid pace and we currently have surplus capacity available to meet the demand for this types of transportation.

Even more dramatic has been the growth in coal traffic handled by Burlington Northern. In 1976, our rail system originated just under 43 million tons of coal. Last year, we handled over 100 million tons. In 1984, we expect to originate between 140 and 145 million tons of coal. During the 1976–1980 period, we invested $1.1 billion to accommodate this growth. We exepct to invest an additional $425 million through 1984.

Despite this rapid increase in our coal transportation business, we are currently faced with a substantial amount of excess capacity. During 1980, an average of more than 40 mile-long sets of coal unit train equipment were in storage due to lack of demand. During the first six months of 1981, an average of 59 trains were in storage on the Burlington Northern system. Mr. Chairman, I trust that the statement in your invitation to appear about the inability of railroads to meet the demand for coal transportation did not apply to Burlington Northern or the Pacific Northwest.

The point I am making is that Burlington Northern is no stranger to growth in transportation demand. We have the expertise and the financial capability to handle substantially more business than we presently have.

One of the major factors in Burlington Northern's future growth will be the further development of international trade through the ports of the Pacific Northwest. Thus, we are strongly in favor of further port development, with economics determining where the growth occurs.

The development of coal exports through Pacific Northwest ports is a matter of top priority for our company. We have already committed over $700,000 in contributions to five difference studies with various Northwest ports and potential coal exporters. This "seed money" should help to resolve some of the engineering and environmental problems which might otherwise delay port development. In addition, we have spent substantial sums on our own internal studies in order to determine the most cost effective rail transportation routes for this potential traffic.

Because of my personal conviction that the international markets will provide important opportunities for Burlington Northern in the future, we recently created a new position headquartered in Portland to specifically develop international business. Mr. Ted Michon, who is here with me today, was appointed Vice President-International last April. Since that time, both he and I have made several trips to the Orient for the purpose of developing grain and coal export business. We are leaving in just a few hours on another such trip.

Many of the meetings held on these trips included officials from Northwest ports and companies. I have often stated publicly, and will do so again here today, that Burlington Northern supports all of our Northwest ports and will do whatever makes sense economically to assist in their development.

In addition to these efforts, Burlington Northern is willing to make whatever investments are necessary in the rail facilities serving those ports where additional traffic develops. Such investments could include upgrading the line from Portland to Astoria if the necessary volumes of traffic become firmly committed to move through the Port of Astoria. I made that commitment to Governor Atiyeh last December and have repeated it since on many occasions. I will make that commitment once again today, so that there should be no doubt as to our willingness to upgrade the Portland-Astoria line if the necessary volumes of business develop.

I want to make it clear that we will not upgrade rail facilities on speculation. We are definitely willing to sign long-term transportation contracts for the movement of coal by rail. We would expect that the other participants in the coal mining and transportation chain would do likewise prior to the investment of substantial sums of money in the upgrading of rail facilities.

I also want it known that Burlington Northern does not play favorites between ports. Nor is Burlington Northern in a position to dictate which ports receive which movements of export or import traffic. We believe that economics should be the deciding factor in determining where the business goes and that the shippers and receivers should make the ultimate decisions.

We do feel that we have an obligation (and a strong self-interest) to cooperate with any of the ports we serve to develop additional traffic. Our interest in the further growth of international commerce through the Pacific Northwest ports is a strong one and played a key role in our recent decision to move our corporate headquarters to this part of the country. Our aggressive work in this area will continue.

Mr. Chairman, your letter inviting me to appear today asked specifically that I describe any impediments to further port development. Money, of course, is always an issue. I will not deal at length with the various user charge proposals which are active in the Congress. However, I do want to state our general conviction that our

economic system works best when the full cost of each component is paid by the people who use it. The laws of economics should govern port development. I have no doubt that, as major volumes of traffic develop, the financing will be forthcoming to make the needed improvements in port facilities. The necessary mechanisms for revenue bond financing are in place and capable of doing the job.

One major problem affecting port development is the incredible number of permits which must be obtained and studies which must be completed before any major facilities can be built. I recently asked for a list of permits and other governmental actions which must be completed before a bulk-loading facility could be built in the State of Oregon. What I received was an eleven-page, single-spaced, typewritten list of actions which had to be completed by a bewildering array of agencies all at levels of government.

Mr. Chairman, I think your committee could be of great service by dealing with the complexities of the permitting process. I firmly believe that we can have further port development which makes both economic and environmental sense without years of delay caused by the regulatory maze which currently exists.

There is one final impediment to the immediate development of coal exports through Pacific Northwest ports. While there has been a great deal of talk about demand for coal in the Orient, to date no customers have been willing to make firm commitments. As I said earlier, Burlington Northern is working aggressively to develop this business, but no one is beating down our door in an effort to sign a contract. We believe that substantial volumes of coal will move through Pacific Northwest ports, but not until the consuming nations are ready to make the contractual commitments that will permit these exports to begin. Despite anything that we might say or do, the customer is still the boss.

In summary, Burlington Northern strongly supports growth in international trade. We believe that the development of additional tonnage moving through Pacific Northwest ports will be very important to the future of our company and we will continue to work aggressively to promote this type of business.

Before ending, Mr. Chairman, I would like to cover one final point. I note that one of your witnesses will represent a company which has proposed building a coal slurry pipeline. While we vigorously oppose the granting of special privileges and advantages to our competitors by the federal government, Burlington Northern does not oppose the construction of coal slurry pipelines where economically feasible and where water supplies are adequate. Nor do we oppose additional competition for the rail hauling of coal.

We will continue to oppose the granting of Federal eminent domain to coal slurry pipelines along with the right to operate as private carriers, serving only the most profitable routes and customers. Railroads have neither of these benefits.

There are no laws in existence today which prohibit the construction of coal slurry pipelines. If a coal slurry pipeline is proposed under existing law and operates as a true common carrier, we would have no objection to competing with it.

Thank you for the opportunity to appear today. I will be happy to answer any questions you might have.

The CHAIRMAN. Howard?

STATEMENT OF C. HOWARD BURNETT, VICE PRESIDENT, EXECUTIVE DEPARTMENT, UNION PACIFIC RAILROAD CO., OMAHA, NEBR.

Mr. BURNETT. Senator, it is a privilege for me to be here to address this committee.

A number of the things that the Burlington Northern has said we agree with. We are both in the same business and recognize the importance of the Union Pacific resources to the well-being of the ports and to world trade and recognize the opportunities and responsibilities that the Union Pacific has to participate in that trade.

We also recognize that the ports need the railroads and that a unified transportation system is necessary. We feel that the Union Pacific has a major contribution to make in Oregon and in Oregon's port development.

Our existing source to point relay rail system is, we think, operationally sound and physically in very good shape for handling any

traffic that might come in the foreseeable future. We are in a position to expand as the increase in traffic occurs, and to insure, I think, a first-class transportation package to wherever it might be needed on our line.

The proposed increase in coal traffic is not going to in any way place an undue burden on the UP, and we are ready and available to handle the traffic as it does occur.

I think, in summary, our position is that we want to be on a very cooperative basis not only with other transportation systems, the ports, but also in connection with the States in which we operate.

The CHAIRMAN. What would you have done if you owned the line from Portland to Astoria?

Mr. BURNETT. I think we'd do as we have done in other locations. If the traffic is available and it appears that it is going to be moving over that track, we would upgrade the track in order to have it available for the traffic as it was presented to us.

The CHAIRMAN. Do you think if the track were upgraded, coal would move over it to Astoria?

Mr. BURNETT. Probably, if there was a coal port in Astoria.

The CHAIRMAN. Well, assuming that, do you think it is going to move?

Mr. BURNETT. If the track were upgraded and in good condition with a coal port, I am certain there would be a very heavy movement of coal out of Astoria.

The CHAIRMAN. Do you think that Portland and Astoria have advantages as coal ports that are unique? Or could any port be a coal port?

Mr. BURNETT. Being an Oregonian, I think Oregon has great advantages.

The CHAIRMAN. That answer won't do, Howard.

Mr. BURNETT. Yes, both Astoria and Portland are in a position, I think, to benefit from the movement of coal. As Mr. Shelton and Lloyd have testified, the majority of the existing ports that would receive coal are equipped to handle 40-foot draft ships. I think that the coal port that is available at this time is going to be in a position to get a start on the service that would go to those ports. It appears from all of the information that I have read, that our people have studied, that there is going to be a great deal of coal moving in the future, and more than one port is certainly necessary in order to be able to take care of that.

The CHAIRMAN. I understand your reluctance to be specific. I remember when Dick Neuberger was Senator, he did not make many political mistakes, but he once made the mistake of writing an article on the 10 most beautiful vacation spots in Oregon, thereby leaving out 400 or 500 others that thought they were the most beautiful in the State of Oregon, and all he did was come out a net loser.

Mr. BURNETT. I think probably what you are doing is directing that remark to our serving many ports, and our position has been to cooperate with all of those ports, not necessarily selecting one in preference to another. I think that there are advantages to many different locations, and the economics will point out what those advantages are. Some ports are closer to the source of supply, referring to coal, than others. With a short travel distance, obvious-

ly the cost is going to be less, and the service perhaps might be shorter, and a bit better. There are a number of factors that are involved, particularly in connection with unit train operation. Mr. Bressler has talked about trains, that sort of thing. We are doing everything that we can in order to improve train movement, but to provide additional access for meeting and passing trains, so that increased movement to the trains can occur.

We feel that we have invested heavily in Oregon—and Washington—in Oregon, we feel that the traffic is going to increase. It has been the Union Pacific's policy to have a first-class plant at the time the traffic arrives.

The CHAIRMAN. Howard, you have been in the transportation business a long time. Assuming that we do not have user fees that make it very difficult for inland ports to compete, and assuming that there is adequate transport to those ports, is there any reason why Columbia River ports can not be competitive with the Puget Sound and California?

Mr. BURNETT. I think they can be, yes.

The CHAIRMAN. They have a certain natural advantage with goods flowing out of Wyoming, Montana, Utah, Idaho, and flowing down a rail line that does not have to come over the mountains here, and can offload at any of a variety of ports from Lewiston on down.

Mr. BURNETT. Of course this is true.

[The statement follows:]

STATEMENT OF C. HOWARD BURNETT, VICE PRESIDENT—EXECUTIVE DEPARTMENT, UNION PACIFIC RAILROAD CO.

Mr. Chairman, and distinguished members of the Senate Commerce, Science and Transportation Committee.

Good morning, and welcome to Portland. I am C. Howard Burnett, Vice President—Executive Department, Union Pacific Railroad, Portland, Oregon. I am pleased to participate in the Committee's task of reviewing port development in Oregon.

Increasing American participation in world resource trade markets is a critical factor in restoring our nation's economic health. The Administration's coal export policy, for example, recently released by Commerce Secretary Baldridge, has carefully identified the substantial benefits to our national economy of expanded coal exports—creation of jobs in the coal, transportation, handling, and related industries, a favorable balance-of-payments effect, and a reduction in world-wide petroleum consumption. Of particular significance, that policy finds that the proper role of the Federal government is not to subsidize coal exports, but to expedite them. Union Pacific supports that effort. By linking port improvement to commercial demand rather than budgetary or political processes and constraints, expanded international trade participation can proceed on a strong and rational basis.

However, port development policy cannot just rest on resource strengths and potential demand. Development and improvement needs must be recognized. Those needs will require a cooperative effort involving many parts of our national transportation system. This Committee has itself suggested that our ports are a focus of railroad, highway, marine and inland waterway systems—and the integration of our ports with these modes is crucial to the efficient conduct of our world trade. I believe that Union Pacific Railroad has a major contribution to make in Oregon, and I will so direct my remarks.

Some concern has been expressed that "the railroads" are unprepared to respond adequately to meet expanded resource and distribution demands, particularly with respect to coal and port facilities. Union Pacific Railroad does not share that concern. We understand the critical importance of the development of this nation's domestic coal resources. As a principal hauler of coal today, we recognize the even greater contributions that it can make in the years ahead.

Union Pacific is particularly aware of the unique opportunties and responsibilities inherent in the projections of dramatic growth of coal production in the West.

Traditionally Eastern-based and centered in the Appalachian region, the coal industry in the next several decades is expected to experience a remarkable increase in production in the Northwest Great Plains region, particularly in the states of Wyoming and Montana. This region, where there exists vast reserves of low and medium sulfur subbituminous coal, is a crucial component of Union Pacific's service area and railroad structure.

The Union Pacific Railroad recognizes the significance of the role it can, and indeed must, accept in these production shifts. Of course, the coal industry is a complex system of production, transportation, and consumption, and changing geographic distribution patterns will affect the transportation network linking the production and consumption of coal.

Significantly, a recent Harvard report concluded that the coal industry will have to rely on railroads to carry a major share of the new tonnage, and an increasing dependence on the railroad will be especially great in the West, where the railroad is the "key means of transport, because it is already in place. . . ." [1] That statement can certainly be applied to Union Pacific Railroad. Our existing source-to-port rail system is operationally efficient and physically sound. Our heavy rail, high capacity mainline system provides a stable and inherently expandable base for increasing service. Union Pacific's successful performance in meeting traffic challenges in the past insures a first class trackage base for the future.

To a significant degree, doubts over the industry's ability to deliver have been voiced by those with a competitive interest in doing so.

Yet independent studies have supported the railroads' position that they can, where necessary, develop the needed coal-carrying capacity. The Office of Technology Assessment has stated, for example, that the "capacity of rail systems can be expanded faster than coal mining or electric power generation using coal, provided the necessary investments and local rail facilities are made." [2] Although industry analysts do expect that projected coal traffic increases may affect individual railroads unevenly, such increases should not place an unmanageable strain on total rail capacity, particularly if they are permitted to maintain the economic sufficiency necessary to maintain and improve their existing capacity. And such increases will not place an unmanageable strain on Union Pacific.

In particular, I see no rail capacity problems in Union Pacific's existing or future Portland port service, including a possible coal loading facility be located in the Rivergate Industrial District. Our service to a proposed coal facility at Astoria could be handled efficiently through Portland.

Should port development proceed on some other light rail branch line, heavy steel upgrading may be necessary. In our own judgment, however, the lead time for a port project as a whole would be much longer than that required for such trackage improvement.

Union Pacific is particularly fortunate to enjoy wide (often 200-foot) rights-of-way. Such existing rights-of-way help to eliminate or reduce much of the time-consuming permitting and land acquisition processes which would otherwise be required for track upgrade and/or expansion. Our planning process provides 5, 10 and 15-year "service-sensitive" projections in order to anticipate marketing and operational adjustments based upon changing tonnage levels and type of traffic. That planning process has indicated a developing trend toward unit train and bulk service concepts and we stand ready to respond to these anticipated changes.

Since its introduction some 20 years ago, the unit train has become clearly established as the most efficient and economical means for the delivery of primary bulk commodities, including coal, grain and soda ash. The unit, through-train service provides advantages both to the railroad and the customer. I am aware, however, that this Committee is particularly concerned with important general public impact and interests. Such trends and changes in commodity mix do, of course, change our methods of operation, and we recognize the particular interest of this Committee in community impacts of such changes. For example, Portland's 10 million ton per year through-put projection would require an increase of only about three 85-100 car unit trains a day over Union Pacific.

Another area of interest to this Committee, I am sure, is equipment. In general, rail equipment requirements will increasingly depend upon the requirements of unit train operation, rate of improvement in equipment utilization, out-of-service time ratios, and movement distances.

The Association of American Railroads, for example, has developed two general scenarios estimating industry needs for cars and locomotives to move coal. One

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[1] The Report of the Energy Project at Harvard Business School (New York: Random House, 1979), p. 88.

[2] A Technology Assessment of Coal Slurry Pipelines, OTA, March, 1978, p. 17.

assumes a high frequency of unit trains—and would require the addition of fewer cars and locomotives because of the high degree of utilization in such service. The other assumes a level of unit train frequency no higher than exists at present. I am attaching both scenarios for your general information.

Turning to my Railroad, equipment needs do not present a problem for Union Pacific Railroad. We take pride in the youngest fleet of cars and units in the industry, and Union Pacific maintains an existing productive capacity to meet changing needs. Indeed, that capacity has a particular and favorable local aspect, as Union Pacific's Albina shops are capable of producing 1500–2500 cars annually, and were especially designed for coal cars. Even in a "down" market, the Albina shops are expected to produce 500 cars in 1981.

The testimony above indicates, I hope, Union Pacific's willingness and ability to play a positive role in port development.

I will be pleased to answer your questions. Thank you.

ESTIMATED RAIL EQUIPMENT REQUIREMENTS TO MEET COAL DEMAND 1981–85—HIGH UNIT TRAIN FREQUENCY

[Dollars in millions]

Item	Locomotives per year	Cars per year	Annual investment	5-year investment
Replacement cars to maintain current coal traffic		4,400	$172	$860
Replacement locomotives to maintain current coal traffic	220		152	760
Cars required for additional coal traffic		5,760	225	1,125
Locomotives required for additional coal traffic	288		199	995
Total	508	10,160	748	3,740

LOW UNIT TRAIN FREQUENCY

[Dollars in millions]

Item	Locomotives per year	Cars investment	Annual investment	7-year investment
Replacement cars to maintain current coal traffic		4,400	$172	$860
Replacement locomotives to maintain current coal traffic	220		152	760
Cars required for additional coal traffic		10,300	402	2,010
Locomotives required for additional coal traffic	515		355	1,775
Total	735	14,700	1,081	5,405

Note.—Columns 3 and 4 based on estimated 1980 cost levels.

The CHAIRMAN. Let me ask both Lloyd Anderson and Floyd Shelton, do you have any final comments on rail service for the benefit of the panel?

Mr. SHELTON. Yes, I do, Senator; I think that I do have a couple of comments here with regard to the community impact of the unit trains down there.

The Port of Astoria is concerned with the movement of coal through that community, as well as to the other communities along the Columbia River. Indeed I have seen trains, as I am sure most of us have, that are very large and long, and the fact remains that that rail line is critical to the development of that port down there. To terminate or not to use that rail line into the industrial area of the port which is on the far end or the far south end of town, means that that is the end of the industrial development in that area, so the rail line that is in there has to be used, and I think if you are sitting in one of the restaurants along the waterfront down there, it does not make a lot of difference to you what kind of a train you go around outside, it is a train. But we have initiated an

in-house study to look at that, and indeed we are doing an impact study now to evaluate the impact, and one of the first things that came to my attention was the realization that indeed nearly all of that area through there is industrial right now. It is not going through the downtown area of Astoria, which is generally the exception. Indeed, it runs along the perimeter of Astoria for the most part, on pilings, and there are no through streets on the river side, there are a few industrial sites and a few commercial sites, and I think it is very important that the port continue that effort. We are going to continue that effort. I think the visual impact of the area, also in Portland we have initiated an in-house effort to address that issue, and I think that any acts that we can take and the community can take to address that issue, indeed we are continuing to go up river, because we will want to observe very closely on how that will impact the community. Of course, we can only extend our resources so far in that regard, but nevertheless we feel that we are on the end of the line, advocating their lines coming, you know, the unit trains coming down there, and we do have some real responsibilities down there.

I wanted to assure you, Senator, that indeed we are working on that, we are concerned about that, and we are trying to answer the question before the unit trains come.

The CHAIRMAN. I would like to see your study when you are done. I am convinced, at least initially, that it is going to have an impact on the citizens that they do not expect. Indeed, they may get used to it. I know for a fact that Pendleton and other towns have had trains going through them for years, but Astoria has not had the frequency of trains. I am curious as to what their initial reaction will be as those trains are rolling through at some frequency and with great length, when they have not had it before.

Mr. SHELTON. That is quite correct, Senator, I think—of course we have had a number of rail cars or train cars moving through there a few years ago, and so it changes very rapidly, and there used to be a lot of service through there, but I think the community has become accustomed to the very low tonnage as they are moving now and that rail line is dropping off dramatically in terms of tonnage.

The CHAIRMAN. Lloyd, any further comments?

Mr. ANDERSON. Senator, I think in my prepared remarks there were some remarks on the Burlington Northern Bridge. It is a fine bridge, but it is getting a little old, and the span does need to be widened in order to allow the repair yards to handle the larger ships that come in.

I believe there are ships in the harbor right now which are the largest we've had and still got through the bridge, but I say under some circumstances, it would be even more difficult than it was this last time.

I think the location of the unit trains within the Portland area are such that we are going to have a problem. They generally travel in areas that are at least moderately isolated from high density housing, and therefore would be unexpected through that area.

I think finally with reference to a coal facility, that the determination of where there is going to be one, we can kind of make

available a location and make it available under terms which we think are competitive. At the same time the investor is going to look at what the cost is, it is going to be moving cargo by rail, by ocean going ship and by different size of ocean going ships. I think this is really why the investor would be coming to the coal facilities here short term and long term at Astoria is because he can make more money out of the investment here than he can there, but I think that would also hold up in any location.

I think Kalama has a fine site, but I think the economics of it, they would come again to locating in Portland, so again, to go back to my comment on your question, the service we have in here now is excellent; we have got three good railroads and they provide us a great deal of help in getting through service.

The CHAIRMAN. Gentlemen, thank you.

I appreciate you taking your time.

Let's take about a 5-minute break and then we will take Lee Johnson.

[Brief recess.]

The CHAIRMAN. Let me say again, the record will remain open for 3 weeks after this hearing for other testimony of witnesses who could not appear.

We now have with us Lee Johnson, the executive assistant to the Governor.

STATEMENT OF LEE JOHNSON, EXECUTIVE ASSISTANT TO THE GOVERNOR OF THE STATE OF OREGON

Mr. JOHNSON. Sir, I have given you some prepared remarks that I have delivered here today, but let me try to summarize what I think are the important points. As we see it, and particularly in listening to the discussion of the panel that appeared before me, I think we would like to focus for a moment on why we do think that the development of the Oregon ports is a matter of national concern and certainly a matter that deserves congressional attention.

I think a fact that is often overlooked, and I am talking about developing the Nation's international trade, certainly trying to restore our balance of payments, in particular with the Pacific Rim countries, I think the fact that we often forget is that we do occupy an enormous land mass in this country, and that if we are going to compete in international markets, it is going to be essential that we move goods and I am not talking just about coal, although coal is certainly a very obvious example, but I think there is going to be greater shipments, there are now significant shipments made of wheat out of the Midwest, I think there are going to be other products moving to the Pacific Rim from the Midwest, and they have got to move out of the Pacific coast, and I think we have got to look, how can we solve the overland transportation costs.

Now the fact that probably sticks in my mind more than any other fact is that when we look, for example, at coal, that over half the delivered price of coal to the Pacific Rim countries will be eaten up in railroad costs crossing the United States, and I think that that is the reason that we really have to look deeply at the development of Oregon ports, as a matter of national interest. We do have some unique factors here. One is just purely a factor of

distance. We are just essentially north of the centerline of the Pacific coast. When you look at the coalfields of the West, there is really a 68-mile difference between rail transportation from Ogden, Utah to Portland, versus Ogden-Utah-Long Beach, and when you look at the real vast reserves of coal that we have in this country, such as the Powder River Basin of Montana and Wyoming, there is no question about the distance differential.

Likewise, when you start looking on a longer term basis, the wheat fields of the Midwest, Nebraska, Iowa, and north of there, it is apparent that Oregon is in a unique geographical position.

There is a second factor which was mentioned this morning by Mr. Bressler, and it is really the Columbia River-Snake River system. It is one of the great natural highways of commerce, because we have got a water level, slack water, all the way from the edge of the Rockies from Lewiston clear to the Pacific coast. There is no other route that has more ease of passage than that route to the Pacific coast that I know of. If you go to Puget Sound you have got to go over the Rockies or you basically have to come to Portland and go north.

They have similar problems to the south because they have to go over the Sierras to go to Long Beach.

The third factor, which I think is often overlooked, and I cannot pretend to be an expert, except from what we do know about our situation in Oregon, but I am informed and you are certainly in a position to be better informed, that the environmental congestion, traffic congestion to be confronted in Puget Sound or in the Los Angeles corridor into Long Beach may well be insurmountable when you start talking about unit trains of 100 cars or more.

We have made a preliminary estimate of these environmental problems, and we do not feel that there are any significant environmental restraints, and this is a State which I think everybody knows that has great pride in our environmental laws and our land use laws, but taking first Portland, Portland and the Port of Portland is going to be able to obtain the air pollution permits for a coal facility here and we see no significant air pollution problems with respect to locating facilities either at Astoria or Portland, for that matters Coos Bay.

Likewise, from the standpoint of land use, we see the land use process as about completed. There will be adequate sites at all three of those ports in order to accommodate any kind of coal facilities or other bulk facilities that we can probably see in the foreseeable future.

So we do think it is in the broad national interest to—in trying to develop these ports. Obviously Oregon has an interest in it. We, I think in summary my testimony is essentially this, we feel that there are really four things that Congress, we would hope that Congress would address itself to; one, of course, is the Bonneville Locks, there is no question but that it is a road block to barge traffic on the Columbia River.

Second, and I really should combine two and three, one, the first stage, deepening the draft of the Columbia bar, that has got to be completed in 1983, and the second is the appropriation study, that is a $500,000 appropriation, that is a House study to deepen that bar further to accommodate large ships, because we see the future

is going to be in large draft ships, not only for coal, but for many commodities. When you look at it, all estimates indicate there is approximately a 26-percent savings in cost between a 50,000-ton ship versus 100,000-ton ship, and it is obvious that that is where the future development is going to be.

We feel that one of the highest priorities really is to make Astoria a deepwater port. Fortunately we would hope that Congress would give consideration of deepening the channel at Coos Bay. If these things are as important to us from the standpoint of the State as we think they are, if this country is really going to compete in international trade, if has got to develop not only the ports of Oregon, it is going to have to develop all of the ports. We likewise of course feel and I know this isn't in the committee's jurisdiction, very strongly the administration's proposal for imposing user fees will have nothing but the exact opposite effect. We do not feel that there is any national interest in accomplishing that way. We certainly sympathize with the idea that the general taxpayer should not bear these costs, but we support a concept which would impose those costs on all shippers in the United States, regardless of whether they are inland ports which require dredging, or using other ports, and we think the administration's proposal merely encourages competition and internal strife, when we really ought to be working together as a nation to develop the ports so that we can really compete in the international market.

That is my testimony.

The CHAIRMAN. One question. Let's say the Federal Government undertakes its part to deepen the channel at Coos Bay, deepen the bar entrance at Astoria, forget about the waterway user fees, widen the locks, and the ports pay their part, what do you think the State's role, if any, is in this development?

Mr. JOHNSON. Well, I think our primary role has been and would continue to be one of responsibility, and second, as a coordinator, one role that I personally have been performing the Governor appointed me to chair an interagency task force; a coal task force which is basically represented from the State and the Port of Portland, the Port of Coos Bay and the Port of Astoria. We feel that we have a role—we really do not think it serves the State's interests or anyone's interest for these ports to get in a competitive situation, certainly not in a situation where they can be played off one against the other.

I think we have had a very good cooperative relationship existing between the three ports. I think it is imperative at this stage, and due in part to the reputation that the State of Oregon has, that we do cast the signal that the State of Oregon is open for business.

The CHAIRMAN. A specific question involving Coos Bay: Astoria complains about the inadequate rail line, Coos Bay justifies the complaints about inadequate road transport into Coos Bay. If the Federal Government were to make a significant commitment on the port, would the State make a significant commitment on upgrading the highway?

Mr. JOHNSON. That is an interesting trade off, Senator.

I think the State has certainly been aware, and we have been for years of the inadequate road transportation down to Coos Bay, and

I think that is a very worthwhile proposition to discuss. The primary problem, of course, is a matter of funds.

As you know, the legislature did pass an increase in the gasoline tax, part of that will be before the voters in the next few years. The real question and this is going to be a difficult decision to make, as those funds become available, then I think there may be some realistic manner in which we can attack that problem. Understandably we are having a very difficult time in maintaining the roads we have.

The CHAIRMAN. I thank you. I have no other questions. I appreciate your coming.

[The statement follows:]

STATEMENT OF LEE JOHNSON, EXECUTIVE ASSISTANT TO GOVERNOR ATIYEH

I am Lee Johnson, Executive Assistant to Governor Atiyeh of Oregon, and speaking on behalf of the Governor. I have some personal familiarity with the port situation in Oregon because the Governor appointed me to chair his Coal Steering Committee which is an interagency task force consisting of representatives from the State of Oregon and the Ports of Portland, Coos Bay and Astoria.

Oregon is presently suffering from an economic recession, having one of the highest unemployment rates in the United States, approximately 9.3 percent. This is largely due to high interest rates and the impact on the housing market with its consequent impact upon our state's principal industry, forest products. It is imperative that Oregon further diversify its economy.

It is Governor Atiyeh's opinion that one of the most promising areas for economic growth in the state of Oregon relates to international trade and the development of port facilities. Port development in Oregon is a matter of national significance and deserving of the attention of Congress. Oregon is the natural gateway to much of the export trade with Asia, and in particular the Pacific Rim countries. I am certain the Committee is much better aware than I of the nation's need to develop that trade if we are to obtain a balance of payments. If the United States is going to compete effectivley in world markets, one critical factor is that we be able to transport goods to convenient sea ports at the least possible cost. This nation occupies an enormous land mass and thus those transportation costs are a significant element in the export price of our goods. I am not only referring to coal from the Western mine fields of Wyoming, Montana and Utah, but also agricultural and even manufactured products from the midwest. The fact is that even now more and more agricultural products are being transported through Oregon's ports whose origin is in the midwest. I will discuss Oregon's unique geographic features in more detail in a moment. Let me first, however, give you a general overview of the existing port facilities in Oregon.

We presently have four natural ports located on the Pacific Coast. First, to the North is Astoria, which is at the mouth of the Columbia River. The Port of Astoria is presently equipped to handle Panamax-size ships of up to 50,000 dead weight tons, 40 foot draft. The port is served by the Burlington Northern Railroad and also by barge traffic down the Columbia River. The port is presently handling approximately 1.1 million short tons a year, primarily log and lumber exports.

Approximately 50 miles to the South of Astoria is the Port of Tillamook. This is primarily a fishing port. However, it does have a natural harbor which could be developed to handle international shipping.

Approximately 70 miles to the South of Tillamook is the Port of Newport situated on the Yaquina Bay. A 30-foot channel is maintained to the harbor of Newport. It presently handles approximately 300,000 tons per year of mostly forest products originating from the Georgia Pacific mill at Toledo, Oregon.

On the South end of the state is the Port of Coos Bay, which is presently the largest forest products port in the world. It handles approximately 4.3 million short tons per year. The Port of Coos Bay has a very suitable harbor which is within 11 miles of the ocean, thus requiring an extremely short inland passage. The channel is 35 feet.

In addition to these four coastal ports, Oregon's major port is the Port of Portland. The Port of Portland is 106 miles inland on the Columbia River. Portland is first on the West Coast in tonnage exported and third in total tonnage handled, both export and import. It can accommodate ships of 50,000 tons dead weight, 40 foot draft. Portland has the unique advantage over any other port on the West Coast of being served by the mainline of three major railroads—Burlington North-

ern, Union Pacific and Southern Pacific. In addition and equally significant, it is served by barge traffic down the Snake-Columbia River system.

I mentioned earlier Oregon's unique geographic location. Let me elaborate. If you were looking at the West Coast, Oregon is situated slightly North of center. When we look at what may well become the two most important export commodities—coal and wheat—Oregon's position becomes even more significant. Even with coal mined in Utah, there is only 60 miles difference in rail distance from Ogden, Utah to Long Beach, California as compared to Portland.

However, the vast reserves of coal that the United States possesses which is available for export trade is that from the Powder River Basin of Wyoming and Montana. It is a straight line to Portland and Astoria. Likewise, Portland is almost on a straight line from the wheat fields of Nebraska and Iowa and the Northern Midwest. That straight line takes on even more significance once those commodities have traversed the Rocky Mountains. As you come out of the Rocky Mountains at Lewiston, Idaho, there is a 431 mile slack water river system which traverses the Cascades and the Coast Range to the Pacific Ocean. This river system is one of the great natural highways of commerce. It provides not only a waterway system for barge traffic which can accommodate loaded barges of 10 to 20,000 dead weight tons, but it is also the corridor of passage for the Union Pacific and Burlington Northern.

There is no other natural highway of commerce through the Cascades. Trains going to Puget Sound must either go over the mountains or come to Portland and proceed North. The same problems exist with the Sierras of California.

A third factor which places Oregon in a unique situation is that there would be relatively minor traffic and environmental impacts resulting from a large increase in handling bulk commodities in any of the Oregon ports. I do not pretend to be an expert on the problems of ports in other states, but we do understand that traffic and environmental problems associated with the introduction of 100-car-unit trains into the Los Angeles corridor to Long Beach or into Puget Sound may be economically and politically insurmountable.

Oregon is a state which has prided itself on its environmental laws and has probably led the nation. We have, however, completed preliminary estimates of whether there are going to be any significant environmental restraints with respect to future developments of our major ports. We are convinced there are not any significant restraints. The Port of Portland is in the process of obtaining an air pollution permit for a 10 to 12 million ton capacity coal terminal in Portland. There is no indication that there would be any difficulty in obtaining such permits in either Astoria or Coos Bay.

As you know, Oregon has one of the most comprehensive land use laws in the nation. However, there are sufficient sites to handle large bulk cargos at Portland, Astoria, Coos Bay and for that matter, Newport or Tillamook, which will be zoned for industrial purposes. Likewise, we do not anticipate significant traffic congestion. Because of the configuration in Portland, there should be no problem in accommodating 100-unit coal trains at the Rivergate site where the Port of Portland is contemplating construction of a coal facility. Likewise, because they are not major metropolitan areas, there should not be any significant traffic congestion problems at Astoria, Coos Bay or even Newport or Tillamook.

I have discussed Oregon's geographical setting and the transport facilities into the Oregon ports. Another factor which must be taken into consideration is the future development of maritime commerce. Most shipping on the Pacific Coast today is taking place in Panamax ships with maximum capacity of 50,000 tons dead weight 40 foot draft. Such ships can be accommodated at our existing port facilities.

There is every indication, however, that future development depends on the existence of deepwater ports. This is caused by the economics of scale. It is estimated that there is probably a 26 percent savings in maritime transportation costs by using a 100,000 ton instead of 150,000 ton dead weight carrier. That advantage becomes significant when we look at the prospect of shipping 100 million tons of coal from the West Coast to the Pacific Rim by the turn of the century.

The Port of Astoria located on the mouth of the Columbia is a natural site for a deepwater port. All that is needed to accomplish this is dredging of five miles of the bar at the entrance of the harbor. While there are no precise estimates of costs, it has been roughly estimated to be approximately $55 million. Coos Bay likewise would be a natural deepwater port, requiring a minimal amount of dredging to accomplish this objective.

With this background, the question arises what steps must be taken to fully develop these Oregon ports. As I have stated before, it is a matter of national interest because it is imperative that these ports be fully developed if we are going to develop this nation's capacity for international trade, particularly with the Pacific Rim. We see four problems which Congress must address.

First, the locks at Bonneville Dam. If the barge traffic from Lewiston, Idaho to Portland and Astoria is going to be fully developed, it is essential that the Bonneville Dam Lock be widened. The navigation locks at the seven other dams on the Columbia are 86 feet wide, 675 feet long and 15 feet deep. These locks are consistent with the channel in the upper river and can accommodate barges of up to 20,000 dead weight tons in barge trains.

However, Bonneville, which was the first of the dams constructed in the early 1930s, is only 76 feet wide and 100 feet long. It is also the furthest downstream of the eight dams and is a major bottleneck to river traffic. Tows which go past the other locks must be disassembled to transit Bonneville Locks. There is presently legislation pending for engineering and design work.

Second, the Columbia River channel from Astoria to Portland is dredged to 45 feet and thus can accommodate Panamax ships. The bar is likewise dredged to 45 feet but because of wave action can only accommodate these ships fully loaded during high tide. The Corps of Engineers is in the process of completing a study expected by 1983 as part of a project to deepen the bar to accommodate these ships. We would hope that Congress would authorize the funds to accomplish this necessary action.

Third, concomitant to the Corps of Engineer's study to deepen the bar to accommodate 45-foot ships would be a supplemental study and hopefully eventual appropriation by Congress to deepen the bar at Astoria so that Astoria could become a deepwater port accommodating 100,000 dead weight ships up to 55-foot draft. The House Appropriations bill contains $500,000 for this study.

Fourth, if the Port of Coos Bay is to develop its capacity as a deepwater port, it will be necessary to dredge its channel.

These four steps are essential if we are going to have the full development of Oregon's magnificent potential as port terminals. We think it is in the national interest that Congress commit to these projects.

I have outlined the major concerns that we see from a Federal standpoint. I did not intend to gloss over some of the other problems which must be confronted with respect to these ports. For example, if the Port of Astoria is to be developed into a deepwater port which can handle large bulk capacity, it will be necessary to upgrade the Burlington Northern railroad line from Portland to Astoria. The Burlington Northern advises that this project will cost approximately $30 million and will take 18 months to accomplish. It is the railroad's opinion and ours that if long-term contracts for the export of coal can be obtained, this capital construction item can easily be absorbed as part of the cost.

The Port of Coos Bay has requested the state agencies to carefully review their land use plans to assure there is adequate land available for port development. This review is already under way.

Before closing, I must make some mention concerning the proposal for user fees that is presently pending before the Congress. I recognize this proposal is not under the committee's jurisdiction, but it certainly should be a matter of grave concern. The administration is proposing the imposition of users fees on maritime shippers to defray the Corps of Engineers' cost for dredging and maintenance of harbor facilities. The imposition of such fees in the manner proposed by the administration would make the cost of shipping through Oregon's ports prohibitive, because all of our harbor facilities require some dredging.

There is superficial appeal in the notion that costs of port maintenance should be part of the transportation cost absorbed by the shipper. It makes no sense if we are concerned with the nation's economic health. As I pointed our earlier, this nation occupies an enormous land mass. The nation's export goods must move long overland distances to reach their export markets. It is imperative, if we as a nation are going to compete in those international export markets, that we move these goods to the sea by the shortest and least expensive routes possible. It makes no sense to abandon the less expensive overland routes by imposing prohibitive user fees on the port user.

Governor Atiyeh is fully aware of the fiscal constraints confronted by the Federal Government. He acknowledges the merit of the arguments that costs of past maintenance should not be borne by the general American taxpayers. But rather than imposing a user fee in the manner proposed by the administration, we would suggest a uniform charge on all users of American ports. The administration's proposal merely encourages political infighting and competition between ports. The nation does not need this kind of internal strife. What we need is the full development of all our ports, on the West Coast as well as the East Coast. We urge Congress to reject the Administration's proposal, and adopt one alternative that will promote rather than protract port development in the United States.

Such a proposal is S. 1586 introduced by Senator Hatfield which would provide for a fast track of the engineering and environmental studies by the Corps of Engineers if there is partial or total private funding for this project. The Governor strongly supports this bill. There is a reasonable likelihood that private funding would be available if long-term contracts can be obtained.

Thank you for the opportunity to appear before your committee.

The CHAIRMAN. Let's move on now to the panel of Mr. Drummond, president of NERCO, Richard Stauffer, regional manager of Cargill, Peter Brix, president of Knappton Corp., and Thomas di Zerega, president of the Northwest Energy Co.

Mr. Drummond, go right ahead.

STATEMENT OF GERARD K. DRUMMOND, PRESIDENT, NERCO, INC.

Mr. DRUMMOND. Thank you, Senator.

I guess I am the only one that is going to address the committee today from the perspective of a coal producer, and I would like to give you a little perspective of what that is.

We are the third largest producer of coal in the western part of the United States, and this year will produce approximately 20 million tons of coal, both from our western and eastern operations, and the bulk of that is in the West.

By 1985, we expect all of our western mining operations to have unsold capacity of approximately 20 million tons, which is equal to our current production.

The CHAIRMAN. Let me see if I understand what that means. Unsold capacity, you will have the capacity to dig that much coal?

Mr. DRUMMOND. That is right.

The CHAIRMAN. And it will not have a market?

Mr. DRUMMOND. That is correct. And to put that into perspective, in 1980 the entire coal industry in the United States had estimated from 100 to 150 million tons of unsold capacity, so the export market represents a very major potential for not only the coal industry, but also for our company, as you know, which is the only major coal company headquartered in Oregon.

The difference between the coal business that we now are engaged in and the export trade is that from our western mines we sell more coal FOB rail car. When we dump the coal into the car, it is the buyer's responsibility. When we sell coal into the export market, which we are doing to a small degree in the East today and hope to do to a much greater degree in the West, the transportation of that coal, either to the vessel at the port facility or to the buyers at the port of destination will be our financial responsibility, therefore it is extremely critical that we have available to us a reliable and cost-predictable transportation system. Much of the testimony we have heard this morning relates to the problems in obtaining that system. We do not have a port facility today that can handle Powder River Basin coal, and we do not have an adequate railroad system to a potential deep water site, and I would like to point out that our coal in the Powder River Basin, not just our entire industry, is low Btu coal. That means it has a low unit value and it also means that to effectively compete in the world market it has got to have low unit cost. Approximately 70 percent of the delivered price of our coal to Korea will be transportation costs, and in order to compete against Australian producers, pro-

ducers in Canada, and perhaps other parts of the world, we have got to do everything possible to minimize those transportation costs. We are working closely with the Burlington Northern and the Port of Astoria to see to it that we will be able to have long term contracts with low base costs and predictable escalation that will enable us to compete in that world market. Without those things being present, and I am specifically referring to a deep water port, the movement of Powder River Basin, as opposed to coal from Utah and Colorado will be substantially delayed.

The economics that we are forecasting show that we have become price competitive with our foreign competition towards the end of this decade, because we have the lowest cost of production in the world, we have labor stability, and we have predictable cost increases. Even though we complain about the inflation rate in this country, it is not as bad as it is elsewhere.

Consequently, it is imperative that we continue to work with the coastal ports and with the Burlington in order to develop long term contracts that will give us low cost initially and predictable escalation and I am pleased to say, and I will reiterate what Floyd Shelton said earlier, that we have evolved a much greater degree of cooperation from the Burlington Northern than we have seen in the past, and we are discussing with them contract rates with predictable escalation, and they certainly recognize that their economic self-interest is coincident with the western coal producers.

The CHAIRMAN. But you have also recommended that Astoria be a deep water port.

Mr. DRUMMOND. That is correct.

The CHAIRMAN. That will not happen without a fair investment by Burlington Northern of the line.

Mr. DRUMMOND. That is correct, but I do believe as Mr. Bressler has said that as we come closer to seeing the movement that the Burlington will make that investment. That investment, of course, will have to be recouped over the coal haul, and that will take a substantial period of time, so it is imperative for us to enter into large, long term contracts with sufficient volume that will justify their making that investment, and will justify also the making of the investment in the port of Astoria by the private sector.

The CHAIRMAN. Can you give me a time frame that you think is realistic, one for Portland which is almost ready to go on coal now, and Astoria, assuming all the other factors are there, the buyer, the rail line, how soon could major exports be coming out of both ports?

Mr. DRUMMOND. Well, I can not really speak to the Port of Portland, but I think that the Port of Portland and the Port of Kalama will be taking Utah, Colorado, or higher value coal in the smaller vessels, I think the economics would support that, and that could happen within the next several years.

The Port of Astoria, on the other hand is really the focus of the, I think, the Powder River Basin, and that is going to take several years. I would expect that we could not see any significant movement down there much before the late eighties or early nineties.

Let me also point out something that has not been mentioned. Coal is not coal; it differs all over the world in its chemical and heating characteristics. The boilers that will burn Powder River

Basin coal have to be designed for that coal. We cannot go into existing boilers today without substantially derating those boilers, and therefore we can not compete with Utah, Colorado, and Australia, for existing facility load.

I think, however, most of the Far Eastern countries that we have talked to recognize that their future coal fired generation will have to be designed to burn the lower heating value coals, it can also burn the higher valued coal, but we will be looked to for the longer term base supply for those units, and those units aren't going to be built and in place tomorrow, and neither are the deepwater receiving facilities that will serve those units, and so that all takes time and I believe that it is not realistic for us to expect the movement of Powder River Basin coal into the Far East will occur much before the late eighties.

The CHAIRMAN. Well, you raised a point that I did not know until several years ago and that was that every one of these coal-fired burners is engineered for the particular type of coal that is going to be used, and it depends upon not only the kind of coal to be burned, but the altitude at which it is going to be burned, and whether it is going to sit on dirt or whether it is going to sit on rock, or what kind of foundation it has, and there are relatively few companies in the world, let alone in the United States, that are in the business of building those kinds of facilities, and they have a long leadtime before they can dramatically increase their output.

Mr. DRUMMOND. Well, that is correct to a degree. We are finding now in the United States that a number of utility systems are building—are designing and building conservative boiler designs which means that they will have the ability to burn coal from a number of different points of origin, so that they are not tied in to the specific location for the life of that generating plant. That technology is available today, and that technology is U.S. technology, and it is available through both Combustion Engineering and Babcock & Wilcox, and they are the boiler designers for example for the new units being built in Korea, so I say that the capability of designing a boiler that has the capability of burning a wide variety of coals is present, but those are not being built today and they will be built in my judgment over the next generation of plants.

The CHAIRMAN. Do you have a way of getting your coal from the Powder River Basin into Oregon and through Oregon, other than on Burlington Northern?

Mr. DRUMMOND. Not realistically; no.

The CHAIRMAN. Should we be looking at the passage of coal slurry legislation?

Mr. DRUMMOND. In my judgment; yes. I think that ultimately the economics of large movement will support a coal slurry pipeline. I do not think it is here today, but I think that means of transportation should be able to compete with railroads; it is not going to take all of the business from the railroads, because it is confined to certain mining operations close to the point of origin. It is confined to homogeneous coals, largely, and it is of course limited, whereas the railroads are basically unlimited in the amount that they can carry.

The CHAIRMAN. If we were to make the coal slurry carriers common carriers that could carry anybody's coal from the areas that they serve, obviously the coal would have to get to the pipeline, should we give them the eminent domain power to condemn?

Mr. DRUMMOND. I believe so; we have supported that, and I think the presence of the ability of a slurry pipeline developer to come into the market would do an awful lot to ameliorate the rate quotation of the railroads. I think it is extremely important that the railroads have to compete for the business of the price, just like we do, because we compete with all of the major oil companies, and major coal producers as well, and competition is healthy and obviously it will have the impact of keeping the transportation costs to a minimum. As I have indicated earlier, the transportation costs and the transportation availability will make or break this business.

The CHAIRMAN. Do you sense that the Burlington Northern is being fully cooperative as a partner in trying to develop Oregon ports?

Mr. DRUMMOND. I believe they are. We have not always felt that warmly about the Burlington, as I think you are aware, but there certainly is a change of attitude. I have taken several trips to the Far East with representatives of that company, and I think there is an era of cooperation developing. They know that their interests are the same as ours, and the same as the Port of Astoria. We have to work together to develop this system.

The CHAIRMAN. Let me ask a historical question. I know that you are a subsidiary of Pacific Power & Light, and as opposed to any of the railroads that were given great grants of land in order to develop their westward lines, how did Pacific Power & Light happen to get into the coal business? How did they buy the mines, when did they buy these mines, and were they really so farsighted?

Mr. DRUMMOND. Well, I would like to be able to say that it was being farsighted. Western coal was in the doldrums in the sixties. Nobody was interested in it. The nuclear option was going to be the source of energy in the future. Coal was very, very inexpensive.

Pacific's management at that time felt that it did not cost much to amass large reserves, and that it certainly was an alternative to nuclear generation, and it made much more sense, of course, because of the Wyoming and Montana area service to use coal-fired generation.

When the marketability of that coal improved, they then decided that it made little sense to hold the coal in reserve for future generation for hundreds of years, and that we could be involved in the commercial coal business, and that is why we're in the commercial coal business and only now approximately 22 percent of our revenues are derived from sales to Pacific Power & Light Co.

The CHAIRMAN. Very good.

I interrupted you in the middle of your testimony and I apologize.

Mr. DRUMMOND. I think that—I would just like to emphasize again that the Staggers Act has opened the door to negotiation of rail contract rates with the Burlington, and I think that is a very positive development, and I see that they are moving toward doing that with us, and we have discussed that kind of a rate, but the

critical thing to the movement of the large volumes of Powder River Basin will be a deepwater facility, and our analysis is for a lot of reasons that Astoria is the logical site for that kind of a facility, and anything that the Congress can do to facilitate that will facilitate the movement, and I am also convinced for a number of reasons the Far Eastern buyers look to the United States for a substantial portion of their future coal imports. They need to diversify their supply, they need to go to an area where there is relative labor stability as opposed to Australia, and they need to ameliorate their staggering balance of payments problem, so if given any opportunity by the private sector and the Government working together to enable this movement to occur, they will buy and they will buy in large volumes.

The CHAIRMAN. Thank you, yours has been very good and very optimistic testimony. I appreciate it.

[The statement follows:]

STATEMENT OF GERARD K. DRUMMOND, PRESIDENT, NERCO, INC.

Senator Packwood, Committee Members and Fellow Oregonians: I'm Jerry Drummond, President of Nerco, Inc. Nerco is the coal and mineral development subsidiary of Pacific Power & Light, headquartered in Portland. Through its subsidiaries, Nerco owns and operates surface coal mines in Montana, Wyoning, Indiana and Alabama. Last year, Nerco produced 14.6 million tons of coal for domestic consumption, making it one of the nation's top ten coal producers, and the third largest coal company west of the Mississippi.

Nerco is also involved in coal exports from our eastern operations. We ship coal to Europe and South Korea through Eastern and Gulf Coast ports. In addition, we're working aggressively toward exporting coal from our mines in the Powder River Basin through the Port of Astoria to utility customers in the Far East. Nerco has interests in three mines in the Powder River Basin and is also developing its Antelope coal reserves in the Basin. We will look to the export market to sell the coal from these operations which is not already committed to long-term domestic contracts.

We are enthusiastic about coal export opportunities and are working with the Port of Astoria, the Burlington Northern railroad and state and federal officials to capitalize on those opportunites. Nerco has organized two trips to the Far East where State and industry officials discussed coal export opportunities with potential buyers in Japan and Korea, and we have also been in contact with Taiwan.

Powder River Basin coal from Montana can be a dependable and economically competitive energy fuel for Far Eastern countries on both a short term and long term basis. The Powder River Basin contains nearly ⅔ of the nation's total coal reserves. In addition to abundant supply, Powder River Basin coal is characterized by low mining costs and labor stability.

The key to promoting exports of Powder River coal is a reliable and efficient transportation system. Specifically, mine-to-port rail service must be provided through long-term contracts which guarantee service at reasonable rates, and a West Coast deepwater port facility must be constructed.

I want to stress the need to focus on the transportation system since, as the Committee is well aware, a broken or weak link anywhere undermines the overall export opportunity. I must also point out that in the coal export market, transportation will be the suppliers' responsibility, unlike domestic coal trade where the buyer makes the transportation arrangements.

Let me summarize where Nerco stands on the two essential elements of the transportation system:

First, the Staggers Rail Act of 1980 provides the mechanism for guaranteeing needed rail service. We are working diligently with the Burlington Northern toward that end. As the Committee continues its oversight of the Act, we hope to be able to report that it is working as intended. We are doing our best and are pleased at the Burlington Northern's willingness to negotiate contract rates with predictable escalators built into the agreement.

Second, the Port of Astoria on the Oregon Coast is the logical site for a deepdraft coal export port facility, and such a facility is absolutely necessary to make Powder River Basin coal competitive in Far Eastern markets. The future of Astoria, or any other port as the final link in the domestic transportation system for coal exports,

depends not only on specific business decisions, reliable rail service, state and local actions, but also on emerging federal policy on deep-draft port development, specifically cost-sharing and permitting requirements. Although port development per se is beyond the Committee's jurisdiction, our interest and the interest of the Burlington Northern in using the Staggers Rail Act to promote coal exports depend upon making sure the final link—the port—is developed.

Certainly, Nerco appreciates Senator Packwood's and the Committee's interest in these transportation issues affecting U.S. and Oregon commerce.

THE FAR EASTERN COAL EXPORT MARKET

Driven by their current extreme and dangerous dependence on foreign oil, Far Eastern countries—Japan, Taiwan, Korea, Hong Kong—will dramatically increase foreign coal purchases over the next 10 to 15 years: from 6 million tons a year in 1980 to about 100 million tons a year in 1990, and 140 to 150 million tons in 1995. Japan alone will increase its coal imports by 50 million tons over the next 10 years.

Far Eastern countries consider the U.S. to be a good source for a substantial portion of this market for a number of reasons:

1. Far Eastern countries want to diversify sources of supply for competitive reasons and to lessen vulnerability to supply interruptions.
2. The western U.S., particularly the Powder River Basin, represents a source of coal supply which is stable and ample enough to serve both domestic and foreign demands on a long-term basis.
3. Powder River Basin coal will be less expensive than the competition toward the end of this decade when the first Powder River export movements would begin.
4. Far Eastern countries are interested in increasing exports from the U.S. to take some of the political sting out of the current trade imbalance.
5. The U.S. coal industry is not controlled by the government, unlike other suppliers, and does not set coal prices according to oil prices.
6. The U.S. has made a strong policy commitment to expand its coal exports.

U.S. COAL EXPORT SUPPLY

Initially, the increase in U.S. coal exports to the Far East can and will be served by Utah coal which has relatively high heating-value and which most closely fits specifications of existing Far Eastern boilers. But for the long-term, for the lion's share of the export market, the potential U.S. source of supply is the Powder River Basin.

Powder River coal, although lower in heat content than Colorado or Utah coal, is attractive to Far Eastern utilities for several reasons:

1. It is readily available now and will be in the future. Abundant reserves already are under lease, and there is sufficient excess production capacity to meet U.S. and Far Eastern demand for years to come.
2. Production costs in the Powder River are lower, an advantage which will increase over time. Powder River mines are large, efficient surface mines; the coal is close to the surface and in seams up to 100 feet thick. The mines are capital intensive and less subject to the labor cost escalation of underground mines.
3. Powder River coal is dependable, rarely disrupted by labor problems.

Because contracts in the Far East trade will be large and long-term, each of these is an important factor.

Despite its attractiveness, Powder River coal will not be exported unless we can efficiently, reliably and at reasonable cost move it from mine to customer.

INLAND TRANSPORTATION

As a coal company, our concerns about the pricing freedom allowed under the Staggers Rail Act are tempered by the impetus this act gives to railroads to actively market their services. We are pleased at the active and early interest of the Burlington Northern in marketing Powder River coal for export. And as I mentioned earlier, we are encouraged by the Burlington Northern's willingness to negotiate rate contracts including predictable escalation.

The Staggers Act, particularly the contract-making freedom it allows, makes the marketing of rail services much more a normal business transaction than in the past when rates were set by the ICC. For both railroads and their customers, this momentous change is taking some getting used to. The export opportunity upon which we and the Burlington Northern are now working is no doubt one of the earliest efforts under the new legislation. Because of the unique nature of coal export transportation, it could be one of the first rail contracts negotiated between carrier and supplier. We certainly hope it will be one of the most successful.

(I should note at this point that long-term growth of coal to serve both domestic and foreign customers would be enhanced by passage of coal slurry pipeline legislation to inject a little more competition into the coal haul business. Given passage of the Staggers Rail Act and the healthy trend toward allowing market forces to work efficiently in providing energy, slurry pipeline legislation should no longer stand out as a controversial or narrow proposal.)

Rail service, obviously, is one of the key factors in selecting a suitable port. Among its other advantages, Astoria has fewer rail capacity constraints than alternative ports.

Alternatives include Puget Sound ports such as Bellingham and Tacoma and inland Columbia River ports such as Portland, Oregon and Kalama, Washington. However, Astoria is the most competitive location, assuming a consistent mill/ton-mile rail rate. Astoria and Puget Sound are the only Pacific Northwest ports that have deepwater coal export potential.

The Burlington Northern has a capacity limit of 5 million tons per year through the 6.8 mile Cascade tunnel leading to Puget Sound. Since several million tons of traffic (other than coal) already move through this tunnel, only limited coal movements could utilize this route. Coal traffic moving along the Columbia River Route and then north would encounter a much longer rail movement as well as adversely impact the most heavily used rail corridor to the north.

To reach the Port of Astoria, Nerco's Montana coal would have to travel via the Burlington Northern railroad west through Billings to Spokane, southwest to the Tri-Cities and west along the Columbia—approximately a 64-hour trip for a 100-car unit train.

A movement of that distance means that rail transportation will be approximately half the total delivered cost of the coal at the Far Eastern port. When combined with port charges and ocean shipping charges, transportation adds up to more than 70 percent of the total delivered cost.

The degree of effort we and the Burlington Northern are putting into working with potential buyers reflects our mutual awareness of the significance of inland transportation costs to penetrating Far Eastern markets.

The only physical constraint on rail movement of Powder River coal to Astoria is the final 40 miles of track, which the Burlington Northern has announced it will upgrade if significant coal movement to Astoria will in fact follow.

NEED FOR A DEEPWATER PORT

Physical capacity of the port stytem is also a problem. Again, I realize that port development is not a specific committee jurisdiction, but I ask the Committee's indulgence to empahsize that potential opportunities for export will be scuttled if the final link in the domestic transportation system is simply not there.

On the West Coast, Los Angeles and Long Beach are the only ports with in-place coal shipping capacity. However, existing coal handling capacity is limited to only 4 million tons per year and these ports are already being used at full capacity to meet overseas demand. Any major increase in coal shipment would require an expansion of coal handling capacity. Because these ports are located near environmentally sensitive metropolitan areas, any expansion program would encounter obstacles and delay, not the least of which results from increased rail traffic.

According to Far Eastern customers, additional Pacific port facilities must be expanded or constructed before they will seriously negotiate significant purchases of western coal. Analysts predict that large volumes of Powder River Basin coal could be shipped to plants in the Far East if port capacity problems can be solved. To be competitive, these low-Btu coals would require deepwater ports (approximately 60 feet deep) which can accommodate the super-bulk vessels (around 100,000 deadweight tons) which will eventually dominate international coal traffic.

Super-bulk carriers will dominate the trade because:

1. Ocean freight savings compared to smaller vessels are significant, between $3 and $5 per mertic ton from the West Coast to Far East destinations. This margin is enough to win or lose contracts.

2. All major competitors to the U.S. (Canada, South Africa, Australia) already have deep-draft coal exporting facilities.

3. Far Eastern countries are scaling their ports and fleets to super-bulk size.

4. Powder River coal sales contracts will be large and long-term, magnifying the effect of bulk-carrier economies of scale.

The Port of Astoria, located at the mouth of the Columbia River in Northwest Oregon, is the logical site for a deepwater port on the Pacific Coast. After extensive study, Nerco's Marketing analysts have concluded that the Port of Astoria has a cost advantage for coal export trade. Further, it has land available for ground and

storage facilities, fewer environmental and permitting problems and fewer rail capacity constraints.

On the Columbia River, it is not feasible to dredge to 60-foot depths to ports upriver from Astoria. Moreover, the extra distance ships would have to travel would offset savings from shorter rail hauls.

We will be working with the appropriate committees of Congress on proposals for emerging port development legislation to make sure they do not pull the rug out from under coal exports to the Far East.

Nerco appreciates Senator Packwood's careful attention to the transportation problems involved in exporting Powder River Basin coal. We would be delighted to provide further information about this exciting opportunity for the western coal industry, the State of Oregon and our nation.

The CHAIRMAN. Mr. Stauffer?

STATEMENT OF RICHARD STAUFFER, ASSISTANT VICE PRESIDENT, COMMODITY MARKETING DIVISION, CARGILL, INC., PORTLAND, OREG.

Mr. STAUFFER. Thank you Senator. My statement covers my basic thoughts. I would like to recap them as shortly as possible and then if you have any questions.

My statement covers three areas: the history of grain exports, our particular projection of exports of grain in the Pacific Northwest between now and 1990, and what Portland transportation needs we feel are necessary for that intervening period.

The charts that are attached show that in the 1970's we tripled our grain exports. This was an increase from roughly 9 million tons in 1970 to 26 million tons of grain exports in the Northwest in the year just completed.

Tons on the river quadrupled. That was a 170 million bushel increase, and rail tonnage exports doubled, that was a 400 million bushel increase. In spite of many times of port congestion and car shortages, we got the job done. We exported all of the local PNW crops as well as handling, in the late 1970's, a new volume of midwestern feed grain exports which the total last year equaled our average exports of Pacific Northwest wheats during the decade of the 1970's. This movement was largely created by innovative ratemaking on the part of the Union Pacific Railroad, and followed by the Burlington Northern.

We also had a growing Asian demand again in the 1970's and ocean freight rates allowed us to move export rather than the Gulf.

During the decade of the 1960's two grain export elevators were built in the Pacific Northwest, one on Puget Sound, and one here in Portland. Also during that decade, the other various ports and grain elevator companies who operated the port elevators expanded to modernize their facilities. We feel that it was an excellent example of what the free enterprise system can do, given relatively free constraints in terms of trading and agricultural policy.

I comment on the growth during the 1980's and will try to be as specific as possible.

The CHAIRMAN. You are very optimistic, you are talking about significant increases nationally and even greater increases in the Columbia River drainage.

Mr. STAUFFER. Yes; but I wanted to concentrate on that. Our experts and I consider our projections to be optimistic. Between now and 1990 we are projecting a 50-percent increase in grain

exports, however those projections are much less optimistic than some of the projections we have seen from other sources.

We feel that we will be going through a period, at least for the next 3 or 4 years, when that growth is relatively static. We had periods like this in the 1970's, even though we tripled our grain exports, we went through one 5-year period where there was absolutely no growth. We see the elements are in place where we could have a period of another 4 or 5 years of stability, the reason being economic problems we see some of our key Asians, not necessarily northeast Asian customers, having, but southeast Asian customers. We also do not feel that we are going to have the ocean trade advantage we have had for the last several years. It will take a little while for that to come back to us, but the totals we are projecting of a 50-percent increase in exports between now and 1990 are across the Pacific Northwest.

In regards to meeting those—meeting the demand and meeting the supply, I comment that there is little that any of us can do about the demand itself, but we can take some steps to improve inland transportation as well as port capabilities.

I would like to comment in regards to port capabilities in the grain business. We feel at the present time that the movement is already in place to handle the exports of the early 1990's. In my presentation I went to a relatively specific breakdown. Last year we handled, as a group of exporters and export elevators, 820 million bushels. We believe, or I believe, in handling that we had a 25-percent overcapacity or additional capacity available. I know that in our facilities we possessed about a third of that excess capacity.

We also know that none of the facilities ran a third shift, they all operated on just two shifts. We could run a third shift which would add another 25 percent to our capabilities to handle at our present facilities. There have been two new facilities announced, which we feel will add at least 250 million bushels or another 25 percent to capacity. Two regional elevators have also announced improvements, one here in Portland and one in Vancouver, and we know in looking at our facilities that we can invest very small amounts of capital and increase our handling capacity. So, in sum, regarding the port capacity and the elevator capacity to handle the grain, we feel that we have it, and announcements that have been made will take care of handling that export volume.

Looking at barges, and barge capacity, they are a big carrier to us, obviously. In the past year something like 217 million bushels or 6 million tons of grain came down the river. This was almost 50 percent of all of the wheat volume that was exported off the Northwest.

The barge companies have been very aggressive, very innovative, to operate on the river, they have added power, they are building new barges. We feel, that by the time this current series of barges is added, they will have the capability to handle 275 million bushels per year, and we feel they can handle this provided the dam system is properly maintained for the next 5 or 6 years, and that that is all the capacity we will need.

In regard to rail carriers, it is very difficult for us at this point in time to be critical of the job that they have done. We were critical

in the mid to late 1970's when the railroads were not moving quickly enough to build hopper cars. The private trade took on a large amount of hopper cars to help get the grain moved. The railroads and the private trade now have built enough hopper cars that we feel the hopper car shortage is over and will be over for the next 10 years.

The western railroads are going to be the key to grain exports over the next 10 years as they are going to be the key to coal.

In the Pacific Northwest we do not feel that we have enough water and enough land to sustain exports at the rate we have had the last year or two, and that for the ports to grow, it is going to be midwestern grain, Kansas, Nebraska, wheat, sorghum, and possibly soybeans, where we have ready and waiting demand in the Far East.

In summary, then, we feel we have done the job, we feel that the elements are in place to continue to do the job during the 1990's in terms of exporting grain off the Pacific Northwest. We do not see that there is going to be a need for significant infusions of public and State moneys to continue this and take care of this export today.

The CHAIRMAN. You are reasonably convinced that the railroads, the barges, the ports, and the storage capacity are all in good enough shape that they can even handle 3 or 4 years of flat demand and then have it go up a bit, significantly, and still handle it?

Mr. STAUFFER. Yes.

The CHAIRMAN. Well, that is very optimistic and very encouraging.

Mr. STAUFFER. We are optimistic in that respect. Those of us who are in the business are a little pessimistic. We would prefer to have a little bit more of a challenge than we see for the next 4 or 5 years.

The CHAIRMAN. But the challenge you are talking about, however, is lack of demand, not lack of facilities to handle that demand when it comes.

Mr. STAUFFER. Yes, sir.

[The statement follows:]

STATEMENT OF RICHARD STAUFFER, ASSISTANT VICE PRESIDENT, COMMODITY MARKETING DIVISION, CARGILL, INC.

Good morning, Mr. Chairman. My name is Richard Stauffer. I am an Assistant Vice President of the Commodity Marketing Division of Cargill, Inc., an international merchant, transporter and warehouser of farm products. Currently, I serve as Manager of the company's Northwest region headquartered in Portland.

In the Northwest, we operate two export terminals; one each in Portland and Seattle as well as three river elevators on the Columbia River and sixteen country elevators. This morning, I would like to discuss three major areas of interest to the Committee. The first deals with the growth of exports from the Northwest during the decade of the 1970s. The second concerns the projections for growth in this decade. The last involves the ability of the transportation system and port facilities to handle the growth of the 1980s.

GROWTH IN PACIFIC NORTHWEST EXPORTS

I have attached charts to this statement detailing the growth of Pacific Northwest exports by grain and the increasing amount of wheat moving to export elevators by type of carrier . . . this is, by rail, truck and barge. The charts show that export volume virtually tripled during the 1970s, although the growth was not steady. Much of it occurred in two spurts. The first came during 1972-73 when Chinese and

Russian demand for U.S. grain increased dramatically. Exports from the Pacific Northwest at that time increased from the 200 million bushel level to around 315 million bushels. Export volumes remained stagnant until the end of the 1977–78 crop year, even though total U.S. exports increased by nearly 100 percent.

In 1978, the Pacific Northwest began to participate in that growth, primarily for two reasons. First, changes in ocean freight rates for cargoes moving off the West Coast improved relative to rates charged for shipments from other coasts. Increases in petroleum prices were largely responsible for these rate changes. Second, the Union Pacific (and later Burlington Northern) railroads serving the Pacific Northwest published new rates for feed grain shipments moving westward from the Midwest. These new rates made it economically possible to move midwestern feed grains through Pacific Northwest ports.

Export volume from our ports increasinjgly are composed of these two sectors . . . Midwestern feed grains and Pacific Northwest-Montana grown grain. In the year just ended, these new rates and favorable spreads between West Coast and other coast freight rates joined with stronger Asian demand and aggressive trading by Northwest exporters to produce an export volume of feed grains of 363 million bushels. This trade was larger than local wheat and barley exports during most of the 1970s. This increase in exports was accomplished despite some problems with rail congestion at ports, shortages of hopper cars and shortages of longshoremen at our elevators.

At the same time, exports of traditional Pacific Northwest crops also increased. In the last crop year, export of white wheat, winter wheat, spring wheat and barley totaled 470 million bushels, compared to average annual exports during the seventies of 310 million bushels. In my opinion, these volume increases for traditional crop exports occurred largely because of a large "supply push" and favorable ocean freight spreads and not because of significant demand growth or changes in inland transportation.

The chart detailing transportation growth shows the modal shift in Pacific Northwest export bound wheats and barley. In 1970, barge deliveries for export were 22 percent of total shipments.

Last year, that percentage was 44 percent. Overall grain tonnage on the Columbia-Snake system has quadrupled in the decade. It has increased by 50 percent in the last two years.

The expansion of deep water barge navigation to Lewiston, Idaho has contributed in a large way to the new tonnage. Equally important, however, has been the large amount of capital investment in the river system made by private barge carriers. New and larger barges and more powerful tugboats have improved the efficiency of the waterway system and made possible the movement of larger amounts of grain for export.

Rail carriers have found it difficult to compete from these short-haul origination areas. But, please note, in the past ten years rail receipts of export grain increased 462 million bushels while barge increased 150 million.

During the seventies two new Pacific Northwest export elevators were built and several modernized. The grain elevator operators, like other participants in the export industry, responded well in meeting the export boom of the decade. Not only were all available local grains exported, but a new Midwest-Pacific Nortwest feed grain movement was created. This export development created new earnings for Pacific Northwest ports and their related industries, as well as for producers, railroads and the overall regional economy.

This growth has also created new I.L.W.U. jobs in elevators and on vessels. I would estimate these new jobs and hours worked have added as much as 13 million dollars to labor payrolls in the past three years.

EXPECTED GROWTH IN THE EIGHTIES

Attempts to project Pacific Northwest exports for the 1980's must avoid reliance on the growth of the seventies as a guide for growth. Many of the numerous figures being thrown around in this regard are, in my opinion, preposterous. The conclusions being drawn about port and transportation needs are equally inaccurate.

The foremost consideration in projected growth is the world economy, especially the economic circumstances of the Asian buyers who serve as the principal markets for Pacific Northwest crops. Current economic conditions do not indicate these customers will be able to finance increases in exports on the order of those seen in the seventies.

Also, demand for U.S. crops will be shaped by political decisions made by our export customers. Pragmatic political realities will do much to shape the demand from such countries as the Peoples' Republic of China, Indonesia, the Philippines and the Indian sub-continent.

Caution is in order. Projecting export demand based on trendlines or drastic per capita consumption increases is overly simplistic. In addition to economic and political considerations, other uncertainties must be considered. Excellent weather in the Pacific Northwest over the past two years has contributed to bumper crops. It could easily be five years before these numbers are recorded again. Likewise, the favorable ocean freight rates that contributed to Pacific Northwest growth in the seventies could change once again. The unique set of circumstances that led to the spurt in regional exports during the seventies, may not be present again for some time.

The charts attached to my statement also contain our recent estimates for the export volume of Pacific Northwest grains for 1985 and 1990. For several reasons, the numbers reflect a period of relative stagnation between now and 1985. First, as I noted earlier, I anticipate smaller Pacific Northwest crops. Also, world economic activity may not produce ocean freight rates favorable to West Coast ports. Economic and political realities in key Asian countries do not point towards import increases.

Despite these pessimistic short-run conclusions, I nevertheless remain cautiously optimistic for the long-term. Export growth for the Pacific Northwest during the last half of the eighties will increase. By 1990-91, exports should total 1,250 million bushels, representing a 50-percent increase in exports for the decade of the eighties.

MEETING 1985 AND 1990 GRAIN DEMAND

Those of us here today can do little to affect Asian demand, ocean freight rates or Pacific Northwest weather. But, we can and must take steps to improve our inland transportation system and our port capabilities if we are to realize a 50-percent growth in export volume.

I would like to preface this section by saying that in almost all cases, the grain trade, port authorities, barge lines and rail carriers have proven to be notoriously conservative in projecting what they could do when the opportunity was presented to them. A recent independent study of Pacific Northwest ports underestimated the handling capacity of many area elevators by more than 100 percent. This and other erroneous conclusions point out major reasons why I believe our export system will be able to handle the export challenge of the eighties, even if our export projections prove too low. Let us review some of the capabilities of our export system.

Pacific Northwest export elevators last year handled 823 million bushels. I believe present facilities could handle 200 million additional bushels on a two shift basis. In the two elevators I manage, unused capacity on a two shift basis last year totaled 70 million bushels.

Many operators could, with adequate preparation, run a third shift that would increase regional capacity by another 150-250 million bushels.

The construction of two new facilities in the area will add 250 million bushels to existing capacity. Two regional elevators also have announced expansion or modernization plans that would add about 130 million bushels to capacity. By investing one million dollars in Cargill's two area facilities, rail handling capacity could be increased by 60 million bushels. I believe that similar improvements could be made by other operators.

To sum up, capacity could be increased by as much as 800-900 million bushels through announced or planned expansion. That amount would take us well past our projected 1990 needs and allow for any "functional disutility" that might develop.

Let's look at barge capacity. In the past year, 217 million bushels moved to the coast by barge. When the current series of new barges are completed, I believe the system will have the capability of moving close to 275 million bushels per year, if the current lock and dam system is properly maintained. The truck to barge river system has provided a more economical movement of area wheats to market than the rail system, resulting in a shift toward use of this transportation method. However, it is not clear that this trend will continue. Railroads are learning more about unit train operation and the efficiencies unit trains provide. At the present time I believe our planned barge system will serve us well into the eighties.

At this time, I would prefer not to attempt to discuss the effect of user fees on this movement.

Rail carriers will have an important say in the future of Pacific Northwest exports. Western rail carriers have doubled their Midwest grain tonnage to the Pacific Northwest in less than two years. This is an impressive accomplishment. USDA transportation figures indicate that the hopper car shortage problem is over. With the addition of hopper cars now under construction and new locomotives, I believe the Western railroads will be able to handle enough grain to meet future demand. Some yard improvements appear to be needed and I feel they will be accomplished.

Much of the Asian demand will be filled by Midwestern grain shipped by rail either to the Pacific Northwest or the Texas Gulf. The pricing policies adopted by the railroads will be instrumental in determining which way Midwestern grain will move, and in turn, Pacific Northwest export growth.

The Northwest region does not contain sufficient arable land to sustain large increases in regional exports for the next five years, or to replace the 350 million bushels of grain originating in other areas that passed through Pacific Northwest ports this year. The grain trade, however, has planned improvements to their rail unloading systems to handle this Midwestern grain. I expect rail carriers to continue to support this western movement. It simply is good business for them to do so.

SUMMARY

Mr. Chairman, the transportation and port systems of the Pacific Northwest have proven capable of meeting export demand. Our success in responding to the additional demand of the seventies, despite many problems, is due largely to the ability of our free enterprise system to respond to economic incentives. Reliance on that system has benefitted U.S. producers, the transportation sector, the ports and their related industries, the region and the nation at large.

As export demand once again grows during the latter half of this decade, I am confident we have the ability to respond.

Handling capacity in the Pacific Northwest is more than adequate to meet our present needs and easily could be expanded to meet the projected growth outlined earlier in my statement. The transportation modes have proven capable of responding to the increased demand for their services, if left free to respond to economic incentives.

Until the next spurt in export volume, our challenge is the efficient management of the present surplus in hopper cars, rail power and elevator capacity. By next year, the surplus barge capacity now present in the Midwest could be true here as well. Also, rail carriers freed of some regulation by the Staggers Act are competing vigorously with each other and the other transportation modes.

In spite of these conditions, I have confidence that the elements are in place or will be moving into place to handle our grain export projections into the nineties with no serious disruptions.

Thank you for this opportunity to appear this morning, Mr. Chairman, I would be happy to attempt to answer any questions you may have.

PACIFIC NORTHWEST EXPORTS

[In million bushels]

Year	Total	White wheat	Hard red winter	Hard red spring	Barley	Corn	Sorghum
1970–71	242.0						
1971–72	186.4						
1972–73	308.8						
1973–74	323.9						
1974–75	313.3						
1975–76	338.4	191	78	59	13		
1976–77	310.7	172	57	49	30		
1977–78	329.0	158	59	62	11	31	8
1978–79	451.0	172	99	74	7	85	14
1979–80	623.7	177	107	83	20	206	30
1981–82	823.7	252	107	71	40	312	41
1984–85	920.0						
1990–91	1250.0						

TOTAL RAIL, TRUCK, AND BARGE RECEIPTS OF WHEAT AT NORTH COAST MARKET

[In thousand bushels]

Crop year	Rail	Truck	Barge	Total receipts
1969–70	161,687	10,533	47,611	219,951
Percent of total	73	5	22	100
1970–71	152,469	11,096	49,641	213,206
Percent of total	72	5	23	100
1971–72	135,792	6,777	63,726	206,295
Percent of total	66	3	31	100
1972–73	219,205	11,707	80,313	311,225
Percent of total	70	4	26	100
1973–74	247,769	13,156	63,973	324,898
Percent of total	76	4	20	100
1974–75	224,317	18,740	80,404	323,461
Percent of total	69	6	25	100
1975–76	209,614	22,692	103,501	335,807
Percent of total	62	7	31	
1976–77	112,360	13,560	120,678	246,598
Percent of total	45	6	49	100
1977–78	118,137	20,956	130,941	270,034
Percent of total	44	8	48	100
1978–79	169,471	19,345	151,894	340,710
Percent of total	49	6	45	100
1979–80	199,790	23,799	169,437	393,026
Percent of total	51	6	43	100
1980–81	247,686	28,024	217,687	493,397
Percent of total	50	6	44	100

The CHAIRMAN. Peter Brix. Peter, have you got the barges ready?

STATEMENT OF PETER J. BRIX, CHAIRMAN, NORTHWEST INLAND WATERWAYS COMMITTEE AND PRESIDENT OF KNAPPTON CORP. OF PORTLAND, OREG.

Mr. BRIX. Yes, sir.

Thank you, Senator. I am appearing here today on behalf of the Northwest Inland Waterways Committee, which is a committee representing the barge lines which operate on the Columbia-Snake River system. We want to thank you at this time for the great interest you have shown on the waterways and in the port develop-

ment in the Northwest. We think of that as very important to the area and to our Northwest commerce.

I have submitted a written statement which goes into some detail about our feelings on projects and the development of waterways, so I will be brief and summarize that.

We see the economic development of the Columbia-Snake River system as being primarily dependent on three major projects which have been discussed to some extent here this morning. The Columbia River bar dredging is a very important project in that it impacts all modes of transportation. Whether it be barge, rail, or truck, it has an impact on future development.

Second, the Bonneville Locks. The widening of that lock is very important to the ability of barge lines to continue to handle growth in such commodities as wheat, forest products, and other bulk commodities which may move up or down the river.

We have a system of locks which has been developed on the Columbia-Snake River system, eight locks taking us to Lewiston, Idaho, and the downstream lock is Bonneville, which is smaller than the others. The result is we are not maximizing the efficiency of the investment that the taxpayers have made in those other locks, so we are hoping that that lock can be rebuilt so it becomes a standard size in comparison to the other seven locks.

The third project which needs to be addressed is on the Snake River below the Ice Harbor Dam. There was a solid rock cut. We call it Ice Harbor Cut, which causes delays because tows have to be broken up, and we need to have that area widened and deepened as it is actually below the standards that were authorized and approved by Congress, and it has been a continual problem because it is a cut through rock. We need to have that developed to maximize efficiency.

I believe that the trade development for the whole group of Western States is important, and to some extent dependent on the development of our waterway system. This is not a Portland issue, an Oregon issue, or even a Northwest issue. It goes beyond that, and to develop this kind of trade we need to have a multimodal system of transportation. We are in a unique and enviable position to be starting to participate in the great development of trade to the Pacific rim countries, and we need to equip ourselves to meet that demand which I believe is going to come. No mode of transportation will handle all our traffic. When I hear the manager of the Port of Seattle say at a hearing, as he did last week before Senator Abdnor, that the Port of Seattle cannot handle any more grain traffic, and that he thinks it is important that we develop ports on the Columbia River system, I think that answers one big question. No port will handle all this traffic. We need Astoria as a coal port, but not the only coal port. I believe we need more than one coal port on the Columbia River. We need to deal with the environmental question in a realistic way. I think that we cannot afford any longer to look at the environmental impacts or have them looked at only as a means of frustrating development. All of these things are important to us and important to this region. I would like to make a comment, although it is not the subject of these hearings, that all of these development issues are meaningless if we are

going to face the Stockman proposals on user fees that have been advanced.

The effect of the Stockman proposals to implement user fees on barge traffic in this country and in particular on the Columbia River system would render literally billions of dollars of public money, private money useless. There has been great reliance on the historic transportation patterns in this area, and the investments that have been made by the Government have encouraged private investment; and to change that would cause devastation in employment of this area, the ruination of these large investments. There would be, I am sure, 100,000 or more people who would be severely dislocated, have economic hardship, and we would have a chaotic situation on the west coast in trying to meet our foreign trade opportunities. So we urge that the Congress and the Government go slow on this issue to study the impacts, look at the alternatives. We do not know the answers ourselves, but we are just saying that the proposals that are currently being made would have a devastating impact, and we want to participate with Congress in looking at alternatives.

Thank you.

The CHAIRMAN. Peter, do you have any employment figures on how much increased barge traffic produces how many increased jobs, not just for the barge company, but secondarily and tertially?

Mr. BRIX. I do not have the figures; they could be developed, but where they develop is in the construction industry and in the trucking industry. For example, there has developed a two-way haul because of grain; grain coming west and lumber going east. There are huge payroll figures in this area related to docks, ship repair, marine construction. I do not have those figures.

[The statement follows:]

STATEMENT OF PETER J. BRIX OF NORTHWEST INLAND WATERWAYS COMMITTEE

My name is Peter J. Brix.

I am appearing as Chairman of the Northwest Inland Waterways Committee, and I am also President of Knappton Corporation of Portland, Oregon.

In addressing you today, I am representing—among others—Columbia Marine Lines, Tidewater Barge Company, Shaver Transport Company, Willamette Tug & Barge Company, Mirene Company, and Knappton Corporation.

Mr. Chairman, as a Senator from Oregon you have always demonstrated a deep and genuine interest in the transportation system of our country, and of course, of the Pacific Northwest. We thank you for holding these hearings and focusing on ways to maintain and improve our port and inland water transportation system.

The issues you are today addressing will have a profound long term impact on the entire economic health of Oregon and the Northwest.

As this committee investigates the problems that may impede the Oregon ports' ability to meet the demands of interstate and international commerce, two problems relating to navigation become quickly apparent—and should be included at the earliest in your deliberations.

These critical situations that must be addressed are: Bonneville Lock & Dam and the Ice Harbor Cut.

Of the eight locks and dams on the Columbia River System, seven of these locks are located above Bonneville Dam. These seven locks are 86-feet in width and 675-feet in length, which allows a normal Columbia River tow of 4 barges which are 84-feet wide and 484-feet long to proceed up or down the river without having to dismantle the tow—as is required at Bonneville.

Bonneville Dam—being 75-feet wide and 500-feet long—requires (in some cases) singling each barge through the lock on either the upbound or the downbound voyage.

The present level of traffic on the Columbia River through Bonneville is causing tow delays ranging from 6 to 18 hours, and sometimes even more, depending on the congestion in the Bonneville area.

The cost at over $200 per hour for a tug boat and the investment of $1,500,000 for grain barges—forced to sit and wait to be locked through Bonneville Dam—has a considerable impact on the cost of transportation to the inland shippers who must use the lower Columbia River ports as their means of gaining access to the markets of the world.

There have already been numerous studies made concerning the cost of operating through Bonneville Dam, and this information can be made available to this committee through other sources.

There is one other area of navigation that must be looked at in order to provide a fast, efficient, and safe mode of transportation to the Lower Columbia River ports. This area is the Ice Harbor Cut near Pasco, Washington, just below the Ice Harbor Dam on the Snake River.

This area of navigation frequently generates traffic delays. The channel is narrow at this point. When visited by high winds and heavy currents, barges must be singled-up in order to traverse this stretch of the river.

Delays in getting through this portion of river can range from five to eight hours—on both the upbound and the downbound voyage. This, again, causes a considerable amount of lost time which obviously brings about an adverse cost-effect for shippers moving their cargoes to down river ports for export.

Those are only two points of attention that urgently require your examination. There are many—and there will be more.

We come to you today, however, with a broader concern.

All elements of our national transportration system tie together. Each element is dependent upon the other and all elements join to form the vital transportation network which supports this nation.

Barges, trucks, and rail must always be available to our ports in order that we can be assured of a continuing maintenance and development of our position in the world marketplace.

If any one element of our transportation system is stifled through economic disadvantage—then the entire system may fail.

Current discussion of a change in user fees we feel will profoundly affect first one element and then all elements of our transportation system.

We feel, therefore, that inclusion of that subject is pertinent today.

We realize that waterway users fees are not within the purview of this committee, but we feel compelled by the urgency of this rising issue to give it voice wherever and whenever we can.

We are faced with no small crisis. The crux of this issue is the survival of water traffic and port development on the Lower Columbia River, and ramifications of this situation spread far beyond that.

We are, in fact, faced with the possibility of an absolute close-down of water-borne commerce on the Columbia/Snake waterway system that would affect all modes of transportation, not ony the barge lines.

Although we apperciate the philosophical intent of the current Administration approach to this issue, we feel that the aftershocks that surely must follow the action plan outlined by David Stockman would violently rock the economy of the entire Pacific Northwest region.

Thjat is why I feel compelled to address this subject before you today—and to add my voice to the chorus of caution that is being heard nationwide.

We see pending—in this proposed method of underwriting the cost of waterway operations—a potentially devastating disruption of established economic patterns.

We see the possibility that healthy competitive factors would be so overturned as to bring an end to barge traffic on the Columbia/Snake system, while delivering to the railroads an unjustified prize of such dimension that rail facility would be hard-pressed to respond adequately.

We agree that the federal budget should be reduced and we also approve of the concept that federal subsidies to private business should be eliminated in order to make things equal for all parties in the give and take of commerce.

As this committee continues its examination of the problems facing Northwest ports in trying to help expand international commerce, part of this effort will examine the relationship between the railroads and water transportation.

Both have played historic roles in helping this country expand economically and both will continue to play key roles in the decades ahead.

The railroads would like nothing better than to force inland shippers to be truly captive, with no alternative to their rail freight increases. I am sure that this committee has heard in testimony before it in Washington descriptions of the

various subsidies that the railroads have received from the government over the decades.

I agree with Senator Max Baucus regarding this issue when he urged that the Administration lend its support to appropriate fact-finding by relevant government agencies to provide Congress the information needed to consider current transportation subsidy phase-out proposals in the context of past subsidies that may still be influencing the transportation marketplace.

The idea of the "user pay the bill" might seem sensible. But we feel, in the overview, that the Administration plan would not be fair; would not take into account the wide range in beneficiaries of the waterways systems; would not generate the money necessary to maintain the quality of the present system—let alone expand and improve it.

We think that—first of all—the American waterway transportation system should be thought of as a single, unified, and essential resource. The deep-draft and the shallow-draft capabilities should be thought of as one manifold unit of our massive waterway traffic. We should unify our system of waterways and treat the operation and maintenance of this unified system in a broad, coordinated, and equitable fashion.

Those I represent honestly feel the Administration proposal—which hits us hard by assessing those who ship by barge with a higher barge tax—would deal us a fatal blow. We know that imbalances would occur almost immediately between deep-draft and shallow-draft ports. We feel that barge traffic would slow markedly, forcing fewer and fewer to pay more and more in the maintenance of this system. We are convinced that port traffic would shift from the United States to Canada and Mexico; that massive international commerce would be lost; that jobs and general economy in overwhelming margins would be savaged; that by a spreading decay of waterway facilities, our national defense would be sorely impaired.

In the face of present and immediate problems and in cognizance of the challenges ahead, we feel this entire issue needs careful and widespread scrutiny—before we tamper with a method of operation and maintenance that we know to be workable and productive.

If these essential competitive elements in the conduct of our business—the equity in opportunity with the railroads and the congestion of river traffic—are not dealt with carefully and evenhandedly, the future of our industry is shrouded in doubt.

And the wildfire realization is this: current Administration proposals for a port-specific and river-segmented approach to waterway user charges adversely affects not only my segment of commerce, but a widely spreading circle of interdependent elements.

The economic impact of this proposal would have a crippling effect on ports development and barge traffic in the Columbia/Snake system . . . and that paralysis would move quickly to shippers of all kinds, to farmers, to the forest products industry, and to the generel job-holding, bill-paying public.

Lloyd Anderson, Executive Director for the Port of Portland, has said: "There has never been a more serious and negative impact threatening the Port. One out of ever ten jobs is affected by the system. This would have a paralytic effect on growth."

Frank Dausz, a member of the Forwarders and Brokers Association who served on the Port of Portland Marine Terminals Master Plan Task Force, has added the impact of his organization, saying:

"We want to get word out on this. People in this region should realize that this is more than a maritime issue; it's an international trade issue—and that affects everyone. If (the general public) thinks this would affect only those businesses directly involved with what goes on at the docks, then they have another think coming."

And another think is exactly what we are asking for today and in the critical weeks to come.

More profitable, more equitable options can be evolved.

A recent proposal made by Senator Mark Hatfield, for example, provides what we think is a reasonable and realistic alternative—is a change in the current Operation & Maintenance support must be made.

In Senator Hatfield's plan—surcharges would be levied on imports and exports in a uniform manner. To be based mostly on tonnage—with charges set by the Secretary of the Treasury on a weight and value basis—these broadly applied assessments, working uniformly throughout the nation's ports and waterways transportation systems, would raise an estimated $5.2 billion during the next ten years.

Because the Administration plan treats shallow-draft and deep-draft segments of the waterways system differently, inequities between U.S. ports would appear immediately.

Senator Hatfield has pointed out that the Administration proposals—two separate bills for the two separate systems—could cost the Lower Columbia River Ports as much as 35-cents a ton, because of the heavy costs of dredging the Columbia and Willamette Rivers; while the deep-draft ports would be paying only 3-cents a ton.

If the expenses of all construction proposal along the Columbia were thrown in—including solution of the two key problems I mentioned earlier—the Port of Portland could face a charge as high as $1.66 per ton.

Senator Hatfield has said that the Administration plan would violate the spirit of the Constitution—which requires that no port be given preference over another, and that duties and taxes be uniform throughout the country.

Senator Hatfield further states:

"The result of the Administration's proposal would be to slowly strangle international commerce through Columbia River ports and through similar ports nationwide."

So it is our privilege to add our voices to the crescendo of those who foresee great danger in the Administration proposal. And we join the Northwest concensus which summarizes its position in this brief fashion:

Spokespersons for the Northwest ports and those who operate the Northwest waterways commerce agree that any transportation or port development legislation should be able to improve the nation's transportation system and to improve our position in world markets.

We agree that the standards and measurements for success of any such legislation should be these demanding testpoints: The legislation should:

Maintain a viable, competitive transportation system.

Minimize inflation, economic dislocation, and unnecessary increases in fuel consumption.

Minimize the adverse impact on United States' competitiveness in world markets.

Minimize shift of cargo to Canada or other foreign ports.

Minimize disruption to the relative competitive position of ports.

Recognize that the inland shallow-draft and deep-draft waterways together form a national transportation system, so that shallow-draft and deep-draft should be treated as one system.

Finally, may I say this:

What the Administration plan for water user charges really does is simply to arrange for a different group of taxpayers to pay the costs of operating and maintaining the Columbia/Snake waterway system.

As the system works now, all taxpayers share the burden—because this vital element of American commerce is now paid for out of the general fund and executed through the Corps of Engineers.

And all taxpayers benefit from the waterways systems.

If the Administration plan is adopted, only those directly involved—in the first level of this commerce—will be asked to shoulder the full burden. The farmers, the timber people, these are the economic groups that will be severely affected.

The result, then, would be this monumental inequity: the many who receive benefit from this great concourse of transportation will not be paying anything—while those who initiate the chain of economic benefit will be paying the most.

This is unfair. It will cripple a vital element of commerce. It will be a mistake that will return to haunt us in the years ahead.

We ask your support in generating national awareness of this issue—so vital to so many who do not yet see their part in it. More extensive invesigation, examination, and thorough deliberation is needed before a radical change should be initiated.

That is what we ask.

The CHAIRMAN. Mr. di Zerega?

STATEMENT OF THOMAS W. diZEREGA, PRESIDENT, NORTHWEST ENERGY CO., PORTLAND, OREG.

Mr. DIZEREGA. Thank you for the opportunity to appear here today and give you our thoughts on transportation and related issues of the Pacific Northwest.

We believe that the worldwide crude oil production has peaked, and in the future will gradually decline, and that this will lead to the resumption of the price spiral which has temporarily reversed during 1981. Coal would thus be required not only to satisfy increased energy requirements but also to replace residual oil that

would be converted to higher value products. If you utilize an annual inflation rate of 10 percent, you could expect the price of high quality crude oil to advance from its present level of $34 per barrel to $60 a barrel in the 1985–86 time frame, and $106 a barrel in 1990–91. These unit costs are roughly equivalent to $6 per million BTU's in 1980–81, $10.50 in 1985–86 and $18.40 in 1990–91. This will be a tremendous incentive to nations in the Pacific Basin to increase their consumption of coal very rapidly. Coal produced in the Western United States should be attractive to them.

The Western coal producers will find Canada to be a major competitor. The Federal and Provincial Governments in Canada are cooperating to establish new major coal ports at Prince Rupert, in British Columbia to serve the bituminous coal mines being established in northeastern British Columbia. Canada is also considering slurry pipelines to transport subbituminous coal from Alberta to western Canadian ports.

We believe the exports of western coal will stagnate if a bottle neck at the southern California ports is not overcome, and rapidly rising rail rates are not dampened. Total reliance on the ports of Los Angeles and Long Beach severely restrict any future growth of western coal exports to Pacific rim countries.

We therefore believe it most beneficial to establish one or more new terminals at ports in the Pacific Northwest to handle exports of bituminous coal from southern Wyoming, northern Colorado, and northern Utah. This will provide a viable alternative export route, help insure increased coal production in the Western States, and also provide export markets for Wyoming and Montana for bituminous coal, which will probably be needed by the Pacific rim countries in the 1980's.

In our opinion, later in the 1980's it will be necessary to deepen western coal port channels from 50 feet to possibly 60 feet as has been expressed by previous people today.

The high cost of rail transportation from mines to ports tends to constrain exports of coal from the Western States. From our mine in Colorado that we operate, the transportation costs, rail costs from mine to the port of Los Angeles is more than we get for the coal. One competitive transportation load that offers considerable promise of relief from the rapidly escalating rail rates is the coal slurry pipeline. We are and have been studying the feasibility of a coal slurry line to the Pacific Northwest. The project proposes to move between 25 and 35 million tons of coal per year from Wyoming's Powder River Basin to a coal gassification project to be located near Boardman, Oreg., as feedstock to produce 250 million cubic feet per day of pipeline quality synthetic natural gas.

The remaining volumes of coal would be moved via the slurry pipeline to a coal terminal on the Oregon coast where approximately 10 millon tons of coal per year could be exported to markets in the Far East.

Coal pipelines offer a clear-cut transportation alternative and should be made available to coal producers and consumers. Unfortunately, however, in this country coal pipelines consistently have been denied access to the Federal eminent domain processes which have been enjoyed by interstate natural gas pipelines, electric transmission lines, and so forth.

Legislation has been introduced in the House of Representatives, which, if approved by Congress, would permit companies wishing to build coal slurry pipelines to apply to the Interstate Commerce Commission for certificates of public convenience and necessity to assist in acquiring easements of rights-of-way.

We at Northwest Energy Co. strongly urge support of this legislation. We recommend, Senator, that legislation of this type be introduced into the U.S. Senate, as it is in our opinion definitely in the public interest.

The CHAIRMAN. How long would it take to build a slurry pipeline from the Powder River basin to the Portland area?

Mr. DI ZEREGA. I would say from the start to design, detailed design until completion of the project, approximately 3½ years.

The CHAIRMAN. And in today's dollars, what would it cost?

Mr. DI ZEREGA. I really could not tell you at the moment, Senator. I can tell you what a pipeline in Alaska would cost, but I do not have those figures in mind. I would be glad to send them to you.

The CHAIRMAN. Hopefully that pipeline is much more expensive than this one.

Mr. DI ZEREGA. Oh, much more.

The CHAIRMAN. If it is not, we are in serious trouble.

Mr. DI ZEREGA. No, it would be much less expensive.

The CHAIRMAN. Tell me about the technology of using coal slurry pipelines offshore and loading on ships, is that physically possible?

Mr. DI ZEREGA. It is physically feasible if you went to a point mooring operation, with no physical restraints on it. The major pipeline of this type that is currently in existence is the one that runs from Black Mesa to Needles, Calif., and carries coal.

The CHAIRMAN. You mean single point mooring and each ship has to be there at that point and you can only load one ship at a time?

Mr. DI ZEREGA. That is correct, and it is a question if you have a mixture of liquid and coal together properly, you could go up and down and back and forth and down and around and the same as any other slurry, so the fact that it is offshore would not preclude the use of it.

The CHAIRMAN. When you run it offshore, do you run it above the water, or does it go under the water?

Mr. DI ZEREGA. You run it underwater.

The CHAIRMAN. Underwater?

Mr. DI ZEREGA. It would be the same as your single point facilities for oil tankers.

The CHAIRMAN. Do most coal slurry pipelines have eminent domain powers?

Mr. DI ZEREGA. Most coal slurry pipelines, and I only know of one that actually exists, and that is basically a one State system, so that it has eminent domain powers in that State, and also is partly owned I believe by one of the railroad companies, so there was no opposition.

The CHAIRMAN. I noted that Mr. Bressler made some passing reference to the possibility of the railroad being in the slurry pipeline business.

Mr. DI ZEREGA. I have never understood why they did not. The railroads jointly with someone who has pipeline technology would

make it a good thing to do, but tradition is hard to break and I think that the railroads maintain the position that was probably sensible 40 years ago and they have not moved to modern times. I do have great hopes for Mr. Bressler. He and I at one time worked for the same company.

The CHAIRMAN. Let me ask you this, would you have any objection if you had Federal eminent domain power to be classified as a common carrier at least to the extent that you are required to carry any coal that is within reasonable tonnage?

Mr. DI ZEREGA. None whatsoever. I do not believe anyone else would oppose such a project either.

The CHAIRMAN. Thank you. I have no other questions.

[The statement follows:]

STATEMENT OF THOMAS W. DI ZEREGA, PRESIDENT, NORTHWEST ENERGY CO.

INTRODUCTION

Mr. Chairman and Committee members: I am Thomas W. di Zerega, president of Northwest Energy Company of Salt Lake City, Utah. Our principal subsidiary, Northwest Pipeline Corporation is a major interstate natural gas transmission company which is the sole supplier of natural gas to Oregon, Washington, Idaho and northern Nevada. Another subsidiary, Northwest Coal Corporation, is a major producer of high grade bituminous coal in Colorado.

We appreciate the opportunity to testify at this hearing on the benefits of establishing a strong western coal export business and of developing the necessary transportation and materials handling facilities needed to support that industry.

DWINDLING WORLD CRUDE OIL SUPPLIES

As you are undoubtedly aware, worldwide crude oil production has peaked and in the future will gradually decline. Many of the most prolific oil producing countries have already passed the apex of their reserve profiles, and these nations now are seeking to stretch out their remaining reserves. Inevitably, this will lead to a resumption of the price spiral which was temporarily reversed during 1981. In the meantime, despite conservation efforts, overall world energy needs will gradually increase.

One predictable response is that crude oil refineries will be retrofitted to convert residual oil that is now consumed in large volume by electrical power companies into motor fuels and other high value products.

This means that coal and nuclear energy will be required not only to satisfy increases in energy requirements but also to replace residual oil that will be withdrawn from the market. The move away from residual oil to coal for electrical generation will be reinforced by the increasing cost of fuel oil, which will at least equal the per barrel cost of the crude oil from which it is derived.

For example, business analysts who study the petroleum industry are forecasting that world crude oil prices will increase along with the rate of inflation, plus a 2 to 3 percent annual jump in real value.

Therefore, based on an annual inflation rate of 10 percent, we would expect the price of high quality crude oil to advance from its present level of $34.00 per barrel to $60.00 in 1985/86 and $106 in 1990/1991 as shown in Exhibit "A". These unit costs are roughly equivalent to $6.00 per million BTU's in 1980/81, $10.50 in 1985/86, and $18.40 in 1990/91.

INCREASING NEED FOR COAL BY PACIFIC RIM COUNTRIES

If these estimates provide to be reasonably accurate, there will be a tremendous incentive for nations in the Pacific Basin to increase their consumption of coal very rapidly. This is already being reflected in Japan's announced intention to reduce dependent on crude oil from 75 percent of its overall energy requirements in 1980 to 63 percent by 1985, 50 percent by 1990, and 43 percent by 1995. Korea, Taiwan, Hong Kong and other Far Eastern Countries have similar policies. Thus, we at Northwest Energy believe that coal produced in the western United States has an excellent chance of capturing a significant share of this market.

SOURCES OF COAL TO PACIFIC RIM COUNTRIES

Japan and other Pacific Rim countries have a fairly broad, but not unlimited, number of alternative sources of coal from which to choose. In addition to the United States, such coal producing countries include Australia, South Africa, Canada, China and Russian Siberia. Japan purchases coal from all of these countries in order to avoid dependency on any one supplier. A list of economically recoverable reserves for these and other worldwide coal producing countries is attached for reference as Exhibit "B".

Australia currently appears to be Japan's favored supplier because it provides coal at the lowest delivered cost. Also, the Australian government has been cooperative in establishing new mines, rail facilities and deep water ports. On the negative side, Japanese importers fear the tendency of Australian mining unions to indulge in prolonged strikes and the rather capricious pricing policies of the Australian coal industry. Australian authorities have made it quite clear that they believe their high grade bituminous coal should be priced on parity with crude oil.

Australian reserves of low-cost strippable bituminous coal, however, are somewhat limited. Consequently, Australia can be expected to curtail future coal exports in order to assure adquate reserves to satisfy domestic requirements. Further, the European market is expected to begin competing heavily for Australian coal during the next ten years. This will mitigate toward higher prices for Australian coal.

South Africa also has limited reserves which will cause that country to control its exports. In the future, South African coal exports also will tend to move toward Europe because of shorter distances and lower transportation costs.

Finally, in view of China's declining oil production, experts predict that China will earmark most of its coal production for domestic consumption.

The most prevalent forecast for long term coal supplies to Japan is that 70 percent of its energy coal will originate in Australia and China; the remaining 30 percent will come from the U.S. and Canada. But for reasons cited above, we are more inclined to believe that these percentages will begin to move closer to the 50/50 range in the late 1980's. Coal imports to other Asian countries will probably tend to favor a somewhat higher percentage of North American coal.

COMPETITION FROM CANADA

In fighting for a larger share of coal exports to Asia, western U.S. coal producers will find Canada to be a tough competitor. The federal and provincial governments in Canada are cooperating to establish a new major coal port at Prince Rupert, British Columbia to serve the new bituminous coal mines being established in northeastern British Columbia. This will bring the number of bulk coal ports in British Columbia to five. The Canadian government is also seriously considering creating a slurry pipeline venture that would transport Alberta sub-bituminous coal from that province to a western Canadian port.

WESTERN U.S. COAL RESOURCES

The principal attraction of the western U.S. as a long-term supplier of coal to Japan and other Asian countries is the huge reserves of economically recoverable coal that exists in the region. However, a large percentage of these reserves involve lower quality sub-bituminous coal that does not meet quality requirements of Japan's current coal purchases.

Substantial reserves of bituminous coal that do meet these specifications are located in Utah, Colorado, and southern Wyoming. Bituminous coal from these states, particularly Utah, is being exported to Japan in increasing volume. These economically recoverable reserves of western bituminous coal are large, but like the reserves in Australia and South Africa, they are still limited. Therefore, we feel that it would be prudent for the Pacific Rim countries, led by Japan, to begin now to develop systems for tapping the huge reserves of sub-bituminous coal located in Wyoming and Montana as a lower term energy source.

COMPARATIVE DELIVERED COST OF COAL TO JAPAN FROM ALTERNATIVE SUPPLIERS

The approximate current cost of delivering coal to Japan from alternative sources is presented in Exhibit "C" which shows the price of coal, F.O.B. the mine, the inland transportation cost, the port charges, and the ocean transportation charges. As you will note, Australian coal currently provides the lowest delivered cost to Japan of about $2.95 per million BTU's, principally because of the lower rail cost to port resulting from the proximity of Australia's coal deposits to the coast. By comparision, bitiminous coal from Utah costs about $3.15 per million BTU's. Even though western U.S. coal is slightly more expensive, Japan and other Asian coun-

tries will continue to increase imports in order to diversify sources of supply. Nevertheless, we must recognize that the volumes of these exports will be governed by the relative premium that must be paid, as well as by the quality of service and security of supply that is provided.

You will also notice, as shown in Exhibit "C", that sub-bituminous coal from Wyoming, delivered to port by rail, has a slightly higher cost of $3.29 per million BTU's than Utah bituminous coal, despite the fact that the sub-bituminous coal sells for about $10.00 per short ton versus approximately $23.00 per ton for Utah coal. Thus, there is little likelihood that Asian countries will import Wyoming-Montana sub-bituminous coal as long as bituminous coal is available or unless a more economical overall transportation and coal utilization system can be developed.

IMPROVING THE COMPETITIVE POSITION OF WESTERN COAL

Exports of western coal will stagnate if the bottleneck at southern California ports is not overcome and rapidly rising rail rates are not dampened. The West Coast has only two coal export terminals located at the Ports of Los Angeles and Long Beach. Each terminal is currently capable of handling from 2 to 3 million tons annually. Although the two southern California terminals are adequate to handle current export tonnage, total reliance on the ports at Los Angeles and Long Beach will severely restrict the future growth of western coal exports to Pacific Rim countries.

Therefore, it would be most beneficial to establish one or more new terminals at ports in the Pacific Northwest to handle exports of bituminous coal from southern Wyoming, northern Colorado, and Utah. This would provide a viable alternative export route and help insure increased coal production in the western states. It would also provide for an export market for Wyoming and Montana sub-bituminous coal which will probably be needed by Pacific Rim Countries in the late 1980's. Another possibility is that processes that have been developed for upgrading sub-bituminous coal by dehydration and compaction may become commercially feasible during the next ten years.

IMPORTANCE OF CHANNEL DEPTH

Most coal movement to Japan now involves "Panamax" type vessels which have a draft of about 40 feet and carry a cargo of 50,000 to 60,000 tons of coal. Japanese companies are content to utilize this capacity carrier at the present time because of limitations on channel depth at most Japanese ports. As time passes, however, it is predictable that Japan will desire to employ larger vessels in order to reduce ocean transportation costs. A comparison of shipping rates for various sized vessels as related to draft is presented in Exhibit "D". A 110,000 DWT vessel which has a draft of 50 feet has a freight rate that is only 77 percent as high as a 60,000 DWT vessel which has a draft of only 40 feet. The freight charge for the large vessel would be $11.55 per ton compared to $15.00 per ton for the Panamax vessel.

Thus, later in the 1980's, it will be necessary to deepen western coal port channels to 50 feet and possibly to 60 feet.

NEED FOR COAL SLURRY PIPELINES

The high cost of rail transportation from mine to port tends to constrain exports of coal from the western states. The current rail rate from Utah to Los Angeles (or Long Beach) is close to $20.00 per ton. From northern Colorado it's $24.00 per ton, which is higher than the price some Colorado producers receive for their coal. Thus far during 1981, rail freight rates have been increased by 14 percent.

One competitive transportation mode that offers considerable promise of relief from rapidly escalating rail rates is the coal slurry pipeline system in which pulverized coal is transported in a mixture of from 30 percent to 50 percent water.

Northwest Pipeline Corporation currently is studying the feasibility of a major high-BTU coal gasification project to help meet the growing energy needs of the Pacific Northwest.

The project, called the Northwest Integrated Coal Energy System (NICES) proposes to move, via coal slurry pipeline, between 25 and 35 million tons of strip-mined sub-bituminous coal per year from Wyoming's Powder River Basin. About 10 million tons will be transported to a proposed coal gasification plant, to be located near Boardman, Oregon, as feedstock to produce 250 million cubic feet per day of pipeline quality synthetic natural gas.

The remaining volumes of coal would be moved via the slurry pipeline to a coal terminal on the Oregon coast where approximately 10 million tons of coal per year could be exported to markets in the Far East. Further, the pipeline configuration

could be designed to permit pick-up of bituminous coal in southern Wyoming and Colorado. The remaining 5–15 million tons would be used by the electric utility industry and by industrial customers in the Pacific Northwest.

Through the NICES project, a secure source of gas will be made available to help meet the energy needs of the Pacific Northwest. The project will also help reduce the Northwest's dependence on Canadian natural gas and, through the export of 10 million tons of coal per year, it will benefit the U.S. balance of payments situation and help reduce pressure on the world price of oil. The gasification plant would have the flexibility of also producing medium BTU gas which could be utilized to produce electricity in combined cycle generating plants.

Further, NICES will bring to the Pacific Northwest a new supply of coal utilizing a low-cost form of transportation that will have minimum environmental impact. The project will also boost the economies in this region through additions to the tax base and employment opportunities.

As mentioned earlier, the price of crude oil is now so high that coal is really a bargain in the Far East. The cost differential between coal and crude oil will continue to increase in the future. Our allies in this region will be looking to replace crude oil with coal. Western U.S. coal transported by slurry pipeline will have an attractive delivered cost per million BTU's in the Far East, and offers our allies the best opportunity to secure major, long-term energy supplies at reasonable prices.

The principal advantage of the slurry pipeline is that the transportation charge would increase very slowly compared to rail rates. The tariff for such a 25 million TPY capacity line in 1981 dollars would be about $20.00 per ton compared to $22.00 for unit train movement. By 1990, however, the tariff for the pipeline would have increased to only $25.00 per ton compared to $55.00 per ton by rail. We believe that the combination of huge coal reserves, plus stable inland freight costs will be sufficiently attractive that Japan will adopt this supply approach. Japanese industry is already very familiar with slurry transportation and handling technology.

NEED FOR EMINENT DOMAIN LEGISLATION

However, as this Committee is aware, establishment of coal slurry pipeline ventures in the U.S. has been thwarted by the lack of the power of eminent domain.

It has been proven that coal pipelines are technologically feasible and that they can be the best means of transporting large quantities of coal over long distances.

Further, the economic benefits of coal pipelines can be achieved with the least harm to the environment. They are noiseless, safe and invisible. They do not block traffic, divide towns or create hazards at grade crossings. The land through which these underground pipelines pass can be restored to productive use after a brief construction period. Throughout the world slurry pipelines have compiled an excellent record for safety and reliability. In short, coal pipelines offer a clear-cut transportation alternative that should be made available to coal producers and consumers.

Sadly, however, in this country coal pipelines consistently have been denied the same access to federal eminent domain processes which have been enjoyed for years by railroads, interstate natural gas pipelines, oil lines and electric transmission lines.

Hopefully, this restrictive situation may be coming to a close. On July 22, 1981 a bill (H.R. 4230) was introduced in the U.S. House of Representatives which, if approved by Congress, would permit companies seeking to build coal slurry pipelines to apply to the Interstate Commerce Commission for certificates of Public Convenience and Necessity to assist in acquiring easements for rights of way.

Such a bill, when enacted, will have a beneficial impact on coal-producing areas in the western states, provide competition in transportation and a more vigorous market place, and ultimately result in enormous savings in transportation costs to coal consumers, domestic and foreign.

Mr. Chairman, we at Northwest Energy Company strongly urge you—and all the members of this Committee—to support this legislation when it reaches the U.S. Senate. Enactment of H.R. 4230, or similar legislation which we understand that you, Senator Packwood, and others are considering introducing in the U.S. Senate, is vitally important.

We are convinced that such legislation is definitely in the public interest. Further, it will prove to be an extremely important factor in the creation of a large coal export market in the Far East, one that could be serviced through expanded port facilities in the Pacific Northwest.

EXHIBIT "A"

ESTIMATED FUTURE WORLD PRICE

of

MARKER CRUDE OIL

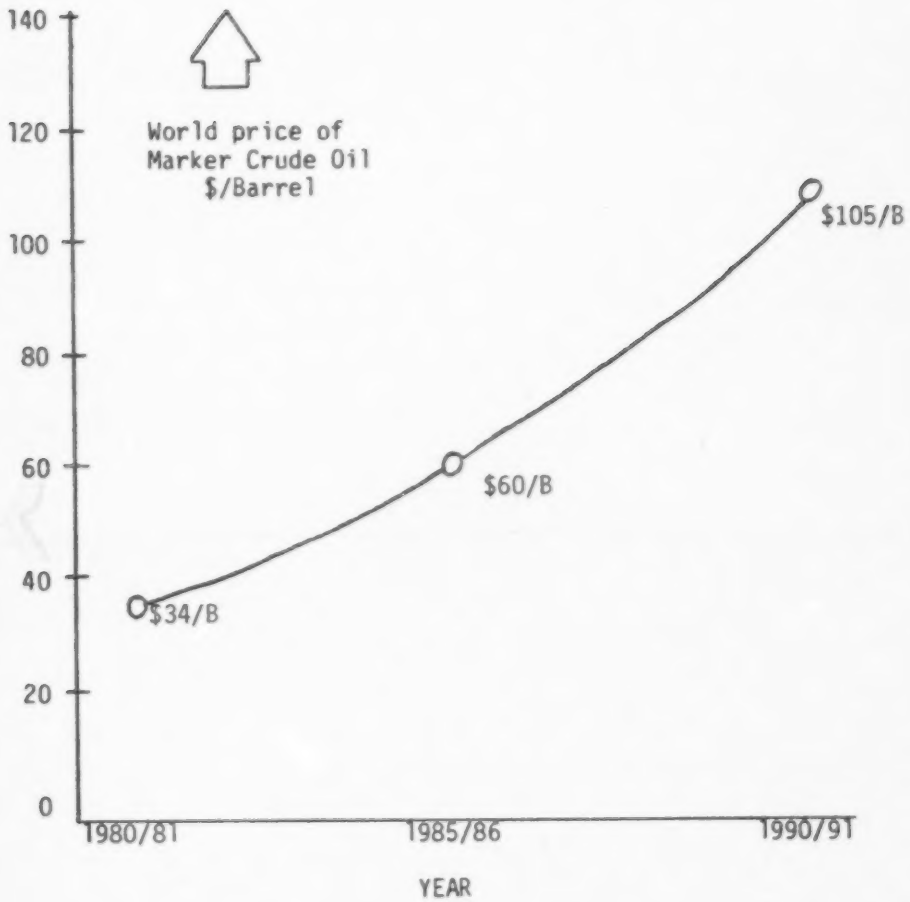

EXHIBIT B.—WORLD COAL RESERVES

[In millions of short tons]

Country	Economically recoverable reserves	Percent of total
United States	200,379	30.8
U.S.S.R.	150,576	23.1
Europe	139,745	21.4
China	88,185	13.5
Australia	21,026	4.2
Rest of Asia	19,344	2.9
South Africa	17,227	2.6
Canada	6,103	0.9
Latin America	3,090	0.5
Total		100.00

Source: 1979 Keystone Coal Industry Manual.

EXHIBIT C.—ESTIMATED CURRENT DELIVERED COST OF COAL TO JAPAN FROM ALTERNATIVE SOURCES

	Price FOB/ mine (short ton)	Rail cost (short ton)	Port charges (short ton)	Ocean freight (short ton)	Delivered cost	
					Short ton	Million British thermal units
Utah bituminous [1]	$23	$21	$10	$15	$69	$3.14
Wyoming sub-bituminous [2]	10	21	10	15	56	[3] 3.29
Australia [1]	35	5	10	15	65	2.96
South Africa [1]	30	10	10	20	70	3.18
Canada [1]	35	10	10	10	65	2.95

[1] Assumes 11,000 Btu's per pound heating value.
[2] Assumes 8,500 Btu's per pound heating value.
[3] In addition there would be penalties for lower quality unless powerplants were designed specially to use sub-bituminous coal.

EXHIBIT D.—ECONOMIC CONSIDERATIONS DEPTH OF SHIP CHANNEL

Channel depth (feet)	Capacity of vessel (deadweight tons)	Shipping cost (per ton)	Ratio (percent)
40	[1] 60,000	$15.00	100
50	100,000	11.55	77
60	150,000	9.00	60

[1] Panamax vessel.
Source: 1981 ocean shipping cost. U.S. West coast port to Japan.

The CHAIRMAN. Thank you, gentlemen, I appreciate it. The record will remain open for 3-weeks for those withesses who could not be here today or could not testify. If you will submit your presentations they will be published in the record, and we will adjourn.

[Whereupon at 11:05 a.m. the hearing was adjourned.]

[The following information was subsequently received for the record:]

GRAIN TRANSPORTATION GRATRON CONSULTANTS
OF THE PACIFIC NORTHWEST,
September 2, 1981.

Hon. BOB PACKWOOD,
U.S. Senate,
Senate Office Building, Washington, D.C.

DEAR SENATOR PACKWOOD: We appreciate your letter of August 19th in response to our concern relative to waterway user fees.

Hopefully you will recall that we did testify before the Subcommittee on Water Resources of the Senate Committee on Environment and Public Works on August 19, in Vancouver, Washington and rather than burden the record, readily agreed to accept your position in connection with railroad subsidies. I would hope that subsidies, by whatever mode, could be removed from the user charge issue, as I am fearful that it is going to overshadow the fact that the grain industry and the economy of the United States cannot stand a user charge that would be as disruptive as that proposed by Mr. Stockman.

We did offer very lengthy testimony during the subcommittee hearing, and while we had very little opportunity to press the many concerns we have, we were satisfied that you and Senators Abdnor and Gorton asked some very important questions and gave many of us an opportunity to emphasize some of the points we were not able to cover in our verbal testimony.

I would also like, at this time, to comment on the meetings you held on August 27th relative to the economic development of the PNW. I was very disappointed with the manner in which the panel session was carried out, since I'm afraid you received a very biased report from the panel participants. If you will recall the rail carriers indicated that should coal ports be developed in this area, they would have sufficient lead time in which to upgrade trackage and other rail facilities necessary to service coal and to avoid congestion for other commodities such as grain. The fact is, Senator, that in the last ten years there have been four new grain elevators built in the Pacific Northwest and all other existing elevators have been upgraded to the point that grain exports through the PNW have more than doubled in that time and all indications are that growth will continue. The railroad factor boils down simply to this that in the past ten years the railroads in the PNW have done very little if anything to expedite the handling of rail shipments and the BN, for example, has closed several yards and have cut back service to the point that we have grain trains sitting for days at outlying points waiting for crews and locomotives. The lead time argument is totally meaningless and I am fearful that if coal exporting facilities are developed at some point along the Columbia River, in or north of Portland, present rail congestion will increase to the point where the commodities will be severely impacted and should the Stockman waterway user charge be imposed, the PNW would suffer severe economic losses.

We have suggested to the Burlington Northern that a new rail yard will be constructed somewhere in the Woodland area of Washington, so that it could service the grain elevators from Longview back to Portland more efficiently and this yard could also be used to handle coal trains. I realize the carriers insist that coal trains will go from the loading spot to an unloading location and will not be yarded, however the best laid plans often go astray, at least that's been our experience in the grain industry and I see no reason to think it would be any different in other industries.

We greatly appreciate your continued interest in this most important matter and while we have tentatively supported the Hatfield user charge bill, I am fearful there are several fatal flaws in the bill and unless it can be amended, I doubt sincerely that Congress will accept it. Following the strategy task force meeting with the Port of Portland and others tomorrow, we will attempt to get back to you with a suggested alternative to the Stockman user charge plan.

Sincerely,

CECIL L. BRENNAN,
Executive Vice President.

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